BY THE SAME AUTHOR.

THE WAGES QUESTION. 8vo. $3.50.

MONEY. 8vo. $3.50.

MONEY IN ITS RELATIONS TO TRADE AND INDUSTRY. 12mo $1.25.

POLITICAL ECONOMY. 12mo. (American Science Series.) $2.25.

MONEY

IN ITS RELATIONS TO

TRADE AND INDUSTRY

BY

FRANCIS A. WALKER,

PROFESSOR OF POLITICAL ECONOMY AND HISTORY IN THE SHEFFIELD SCIENTIFIC SCHOOL OF YALE COLLEGE; SUPERINTENDENT OF THE UNITED STATES CENSUS; AUTHOR OF THE "STATISTICAL ATLAS OF THE UNITED STATES," "THE WAGES QUESTION," "MONEY," ETC.

NEW YORK
HENRY HOLT AND COMPANY
1883

PREFACE.

THE present work differs from the treatise on Money published in 1878, of which it is, in a certain sense, an abridgment, in two respects. In the publication of 1878, comprising lectures delivered in a university, it was sought to trace the history of doctrines, and copious extracts were given with a view to introduce the student to the literature of the subject. The present work, consisting of lectures delivered before a popular audience, in the Lowell Institute of Boston, does not profess to deal with the literature of the Money Question; and I have been content to reach correct results without undertaking, in all or most cases, to balance conflicting views against each other, and set out the arguments on either side according to the methods of the class-room.

There is a second respect in which the present work differs from its predecessor. In my Baltimore lectures I held strictly to the topic of Money, denying myself any excursion into general economics, and stopping short always on the line which bounded my immediate subject. In the Boston lectures the title of the course was enlarged to take in the relations of Money to Trade and Industry. Under this extension of plan, the present work deals with many questions which lay beyond the scope of the former.

I have seen no reason to modify at any essential point the views of the nature and uses of money which were set forth in that work, and I have not thought it necessary to alter modes of expression merely to avoid the appearance of identity between corresponding portions of the two books.

Not only the general progress of opinion, but the course of public events during the past two years, will serve to explain the greater emphasis which is here laid upon the question of Bimetallism, and the introduction of the political aspects of the subject, from which, in the former publication, I deemed myself precluded.

In dealing with the question of Inconvertible Paper Money, it has been sought to trace out the ground upon which economists may take and maintain a stand against Government issues. Doubtless it will appear to many that too much ground has been surrendered to the advocates of fiat-money; but I am satisfied that no more can be held by the friends of "honest money," who are bound also to be the friends of honest argument. The claim that "greenbacks" are not money in the fullest sense of that term; that they cannot do all in the way of measuring values, so called, which gold or silver may do, is untenable, and it can be of no advantage to any really sound cause to seek to maintain it.

NEW HAVEN, April 15, 1879.

CONTENTS.

MONEY AND TRADE.

CHAPTER I.

THE MEDIUM OF EXCHANGE.

It is our present object to inquire, what Money is, and what Money does. But while this title follows the usual order of expression, we note, at the outset, that the first question is to be answered only after and through the second. That is money; all that is money; only that is money, which performs a certain office. To parody a familiar proverb: Money is that Money does.

Not a little of the confusion which has reigned in this department of inquiry has resulted from the failure of writers to fix their attention persistently on the money function, and to treat that as money, all that, and only that, which performs this function. Nearly all systematic writers on political economy allow themselves, at a certain stage in their investigations, to be diverted from the contemplation of the office of money, and begin to generalize what they observe as the common features of those numerous forms of money which appear in a primitive condition of industrial society. Proceeding,

then, to consider how exchanges are effected in the modern and more complicated social system, they find an instrument in use which they compare with their generalized definition of money, and finding a failure of correspondence at a vital point, they reject this instrument as not money. Observing still another form of the same instrument, which they find liable to grave abuse, and, in fact, not infrequently, or even habitually, so abused, and having decided that money is a good thing, they reject this also as being not money, because it is a bad thing, as they esteem it; whereas we shall, I think, reach the conclusion that, in addition to the discrimination of things as Money and Not-Money, based on the determination whether they do, or do not, perform the money function, we must make the further discrimination between Good Money and Bad Money, a distinction observed by scarcely a single writer of eminence on this theme.

Let me repeat, money is to be known by its doing a certain work. Money is not gold, though gold may be money; sometimes gold is money and sometimes it is not. Money is no one thing, no group of many things having any material property in common. On the contrary, any thing may be money; and any thing, in a given time and place, is money which then and there performs a certain function. Always and everywhere that which does the money-work is the money-thing.

The conclusion which the text-book writers, with a few notable exceptions, have derived from the contemplation of what I may call the primitive

forms of money, including herein silver and gold, not less than oxen and wheat, is that money is and must be "a material recompense, or equivalent." The phrase is that of M. Chevalier, the eminent French economist, as translated by Mr. Cobden. Let us test the validity of this conclusion.

We have just passed through an exciting political contest, to which I beg permission to refer, but for no partisan purpose.

In the late election the main contest everywhere at the North, at least, was about the financial issue. The orators and the newspapers of the hard-money party pretty much everywhere took the ground that the legal-tender notes issued by the United States Government, inconvertible in fact, were not money. Their claim was not that the greenbacks were bad money, but that they were not money at all; and in this they followed closely enough the line of reasoning and even the language of the most eminent economists of this and other countries.

Yet the great majority of those who heard the speeches of the hard-money orators and read the editorials of the hard-money journals, must have been dissatisfied with the reasoning and with the result. Plain men know perfectly well that greenbacks are money, and have been money these seventeen years—bad money, if you please, but none the less money. And there is too much reason to believe that when the common-sense of the uninstructed auditor and reader overrode the distinctions by which it was sought to exclude the greenback from the category of money, prejudice may have been

derived against the entire body of economical views that were being presented in the immediate connection. Certainly the advocate of hard money is stronger in urging that inconvertible paper is bad money, than in arguing that it is not money at all.

Money is commonly defined as the MEDIUM OF EXCHANGE. While the term is somewhat too vague for exact definition, yet, as this phrase is commonly understood, it is correct.

Money is that which passes freely from hand to hand throughout the community, in final discharge of debts and full payment for commodities, being accepted equally without reference to the character or credit of the person who offers it, and without the intention of the person who receives it to consume it, or enjoy it, or apply it to any other use than, in turn, to tender it to others in discharge of debts or payment for commodities.

Let us take an illustration from the history of Virginia. Tobacco early became the staple export of that colony. Since tobacco was in unfailing demand for shipment abroad, it was readily taken at the country store. Every planter brought his tobacco thither with perfect assurance, knowing that it would be taken as a matter of course. Every week, or every month, the trader loaded up his teams and sent his stock of tobacco to the sea-shore, where, in the chief towns, it was exchanged against West India goods, dry goods, hardware, etc., imported from abroad. With these the teams returned loaded; and the planters took the rum, the molasses, the

cloth, the boots, the tools they wanted, to the amount of the credit given them for their tobacco.

Such a use of tobacco, however, did not make it money. The transactions thus far described were merely instances of barter, notwithstanding that the foreign exporter, the Virginia importer, and the country storekeeper were all intermediaries between the tobacco grower, and the planter who produced the rum and molasses of Havana, or the manufacturer of cloth, of boots, or of hoes in Old England.

But the fact that tobacco was thus freely taken at the country store soon led to a further extension of its use in exchange which constituted it money. Since it was so freely taken at the store, in exchange for goods of every kind, it was freely taken between man and man throughout the community. The lawyer and the physician did not hesitate to receive their pay in tobacco, because tobacco was always good for groceries and dry goods; while the fact that tobacco was taken not only by the storekeeper but also by the lawyer and physician, made the farmer who raised corn willing also to take it in exchange for his product.

And so tobacco became money in Virginia. It was not, however, until pretty much everybody took it, and took it as a matter of course, that it was entitled to be called money. So long as men accepted it with any great degree of uncertainty as to their finding a person who would in turn take it from them; so long as men accepted it with the feeling that it was something which they were buying, and which they would have to sell over again,

something for which they must needs hunt up a purchaser, tobacco was not money.

The extensive use of an article in exchange does not, we see, necessarily constitute that article money. The transactions, however numerous and important, may be nothing but acts of barter. It is essential to money that it shall have acceptability so nearly universal that practically every person who has any product or service to dispose of, will freely, gladly take it, in preference to seeking at the time the specific products or services which he may require from others, since he is fully assured that with this thing, money, he can, at times and in form and amount to suit his immediate necessities, obtain what he shall desire. Each person, thus, in his place in the industrial order, receives money without the slightest reference either to his own need to consume any of the particular article so used, or to the character and credit of the person who offers it. He takes it from any man, whenever he has any thing to sell, because he knows that any other man will take it from him whenever he wishes in his turn to buy. When an article reaches this degree of acceptability, it becomes money, no matter what it is made of, and no matter why people want it. The carved pebbles formerly used by the Ethiopians ; the wampum which circulated in the seventeenth century between the New England colonists and the natives ; the glass beads used in small payments along the Arabian gulf ; the shells and red feathers employed throughout the islands of the Indian ocean, were money, though capable of serv-

ing no purpose but that of ornament and decoration.

It is in view of this general or universal acceptability of money, while other things are only taken in exchange by those who individually need them for consumption, or by those who have peculiar facilities, as merchants or brokers, for disposing of them, that many writers speak of money as a pledge or security for whatever the holder may wish, now or hereafter, to obtain. Thus Adam Smith says, "A guinea may be considered as a bill for a certain quantity of necessaries or conveniences, upon all the tradesmen of the neighborhood."

And we note not only that money thus gives the holder the assurance that he shall obtain the products or the services of others, whenever he shall desire them, at the rates of exchange then ruling, with greater ease and certainty, and with greater convenience as to kinds and amounts, than would be possible under the conditions of Barter; but that men do not, as a rule, take money to consume it, or to enjoy it, or to use it in any other way than to pass it along in exchange, whenever they get ready to acquire and take possession of the proper equivalents for the products or services with which they parted to obtain the money in the first instance.

This is the central idea of a Medium of Exchange. Money is always a medium; an intermediate thing; a means, not an end.

Men take it, not for its own sake, but for what it will bring them; they hold it, not to enjoy it, but to be ready for the moment when they shall part with it to obtain that which they will enjoy.

Now, the money function being what has been described, let us inquire more particularly into the reason of the exclusion from the category of money of every thing which is not "a material recompense or equivalent," to use M. Chevalier's phrase; of every thing which has not "intrinsic value," to use the phrase by which Professor Bowen seeks to express the same idea.

And, first, let us take the case of Bank Notes. Such notes, when issued, pass immediately into use in effecting exchanges between man and man. Individual notes remain out one year, three years, five years, circulating meanwhile from hand to hand, from town to town, being taken freely at their face, in full payment for commodities, in final discharge of debts. Of those persons who have any thing to sell, nineteen out of twenty take notes in preference to any product or service which the purchasers may at the time be able to give in return. They do so because they know that, by means of the notes, they can obtain, at some other time, or of some other person, that which will, in form, in amount, in place, better answer their needs.

When any producer of wealth parts with his commodity or service for a bank note, he feels that he has acquired thereby a pledge of every reasonable degree of assurance that he shall secure an actual equivalent for what he relinquishes, when he wants it, and where he wants it. When, in turn, he gives up his bank note in the purchase of any commodity or service, he knows that he has resigned his pledge, and has received, in form, time, and place most agree-

able to himself, all that he is entitled to in consideration of the original service which brought him the note.

Now, wherein does the bank note fail to perform the whole function of money, and thus to be money? To this question only one answer has ever been made. That such an answer should have been given by writers of deserved reputation, and been accepted as sufficient by their critics and by the general public, affords a striking illustration of the delusive power of plausible phrases.

The bank note, it is said, is not money, inasmuch as it is a form of credit. It is a promise to pay money; it is not money. Such an answer, though given by writers entitled to great respect, must be pronounced to be utterly inconclusive. To say that a bank note is a promise to pay money is to beg the question. A bank note is a promise to pay gold or silver, and therefore, if you please, is neither gold nor silver; but wherefore not money? Money is that money does; and the bank note performs the money function in every particular.

But, it is said, the bank note is a form of credit. Now, let us grant at once the vital distinction between taking credit and paying money. If I purchase a farm from any one, and give him my promise to pay him at some future date, that promise, whatever form it takes, whether written on paper, or stamped upon brass, whatever my character or competence, whether I be rich or poor, honest or dishonest, is not money. The goods are not paid for, but are yet to be paid for. I have taken credit; I

have not given money. The seller still looks to me for the equivalent of the goods he has parted with.

And it is also to be noted as a consideration of prime importance that the purchaser has accepted my promise, instead of immediate payment, with reference to my known character and presumed competence.

How do these various conditions of a really credit transaction compare with those of purchase and sale where bank notes are used?

I buy a horse, and give the owner thirty $5 notes. Have I taken credit? Not at all; I have paid for the horse. Has the late owner any further recourse to me? Does he still look to me for payment? In no sense whatever. The transaction between us is closed.

Does the owner of the horse take the bank notes from me because he has confidence in my personal character or pecuniary competence? Not at all. I may be the greatest rogue in two counties. If only he knows the notes to be genuine, he cares not for that. He takes the notes from me because they are money—that is, because they have such general acceptance throughout the country that he knows men will freely and gladly take them from him, whenever he wishes to buy any thing.

Could the failure of coincidence between the two transactions be more complete? At what point does the purchase by means of an individual note of hand correspond economically to the purchase by means of bank notes?

In the former case the goods are not paid for; the

late possessor still looks to me for their equivalent, and if he takes my promise to pay, it is because he has confidence in my character and competence.

In the latter case the goods are paid for; the equivalent has been delivered; no further recourse to me exists; and, quite as important as the preceding, the notes have been taken without the least reference to my personal quality or position.

Can we do otherwise than conclude that the note of hand is not money, while the bank note is?

But the question is still urged, Is not the bank note a form of credit? Is it not a promise to pay?

Certainly the bank note is a promise to pay-specie-to-the-bearer, and is, therefore, a form of credit between the bank and the bearer, or holder of the note. But, as between the buyer and the seller of goods, it is not a form of credit. It is accepted in full payment for commodities and final discharge of indebtedness.

It is not the relation of the holder and the issuer which determines the influence which the note shall have on prices (which is the one consideration with which we are concerned in the philosophy of money), but the relation of the buyer and the seller. Money is the Medium of Exchange; its office is to facilitate trade, to bring buyer and seller more quickly and surely together, and enable them to make their bargains and adjust the terms of their exchange more easily and confidently. The question of final payment, as between the holder and the issuer, is purely a banking question. The only question with which any one holder is concerned is whether

others will take the note from him at what he took it for from the last holder. If that be so, he does not care whether it is ever paid by the bank or not.

Suppose I hold in my hand a note which I have just received in payment for a day's work, and an angelic apparition of undoubted authenticity announces to me that the note will never be redeemed, but will be burned up in 1880. What do I care for that? I am not going to keep the note till 1880. I can think now of the very things I shall buy with it as surely as I get to the grocery this evening. I have taken it for a day's work as the most convenient way of getting a day's living. Sufficient unto the day is the evil thereof, is the maxim of all bank note holders. So long as no doubt exists that the notes will pass without question when the time comes to spend them, there will be no hesitation about taking them, even though angelic apparitions should announce that, instead of their being burned up in 1880, the bank would burst next week.

For the reasons given, it appears to me that we must admit bank notes to the category of Money. So long as the paper passes from hand to hand, and is accepted, whether with or without force of law, by the creditor in final discharge of debts, or by the seller in full payment for goods, without further resort, it must be deemed to be money. It may be good money, it may be bad money. But in its universal acceptability, however obtained; in the fact of its general currency as a medium of exchange, we have the single condition of money realized.

While this is not the view of the majority of economists, it is not wholly without authority. "If," says M. Wolowski, "bank notes are not money in the scientific strictness of the term, they at least have all its attributes."

"Bank notes," says Mr. Nicholson, in his Science of Exchange, "or transferable promises to pay coin to bearer on demand, circulating side by side with coin in endless succession, liquidating debts like coin, and which, when in circulation, all business people are, as it were, compelled to take, are absolutely money."

Similar to this was the view of Lord Mansfield. "Bank notes," said that great jurist, "are not like bills of exchange—mere securities or documents for debts; nor are so esteemed, but are treated as money in the ordinary course and transaction of business by the general consent of mankind."

But it may be objected that there is by law a recourse, in the case of bank notes, of the seller to the buyer of goods, in case the notes are not paid upon presentation to the bank. Is not this fatal to the claim that such notes are money?

If the receiver of bank bills had theoretically a recourse to the person from whom he took them, complete in every respect and without limitation as to time, yet if, in fact, that liability were not enforced, if people actually took notes and passed them without reference thereto, that liability would not make the slightest difference with the claim of the bank notes to be considered money. The question, money or not money, is purely a question of

fact; of the fulness and freedom of circulation and acceptance in exchange.

But what is the law in respect to the liability of a person passing a bank note?

In England, where the analogy of the bank cheque appears to have influenced the judicial decisions, the receiver has a limited resort to the person from whom he takes a note, in case the bank shall fail before it has been in his power to present the paper for redemption.

"This responsibility, however," says Mr. J. R. McCulloch, "seldom exceeds a couple of hours, and can hardly, in any case, exceed a couple of days. In practice, it is never resorted to."

It is not to be questioned that Mr. McCulloch here correctly states the habits of trade in the respect of receiving bank notes.

We ordinarily take notes with no other scrutiny, at the most, than to satisfy ourselves that they are not counterfeit. We make no memorandum of the persons from whom we receive them, with the view of enforcing their liability; we never think of going at once with the notes, or sending them by an agent, to the place of issue, in order that if payment should be refused we may have such recourse; and, though the responsibility of the person passing a note expires within two or three hours, or, at the longest, within two or three days, we hold notes often for weeks, according to our occasions for expenditure, and most of us would probably be unable to tell from whom we received any particular bill in our possession.

In England, indeed, where no notes of less than £5 are issued, it is not infrequently the usage of business houses to keep a record of notes received and paid out; but that is not for the purpose of enforcing the liability referred to, but for the purpose of tracing the passage of counterfeit notes, or of identifying the notes should they be stolen.

It has been said that the analogy of the bank cheque has influenced the decisions of the English courts to establish a theoretical liability for the payment of the note in case the person receiving it immediately carries or sends it to the bank and demands its redemption. Some of the American States have followed the English rule in this respect; but in other States, with a better comprehension of the relations of the modern bank note to the needs of trade, it has been held by the courts that the acceptance of bank notes constitutes a sufficient payment, even though the bank were insolvent at the time, provided the tender was made in good faith.

But it may be asked why, if bank notes are money, are cheques not money?

The answer is easy and conclusive.

1. While bank notes are a form of credit between the holder and the issuer only, and not also between the buyer and the seller of goods, cheques are a form of credit both between the holder and the issuer, and between the buyer and the seller. If I buy a horse and give my cheque, I have not made payment. If the cheque is not honored on presentation within a reasonable time—and of this men

taking cheques generally make sure, the receiver comes back to me.

2. Cheques are taken with reference to the character and presumed competence of the persons offering them. If I did not know a person to be respectable, and presume him to be pecuniarily responsible, I should not take his cheque and part with my goods. I take notes from a man in payment for whatever I have to sell, not caring what his character or standing is, and probably not knowing his name, occupation, or residence.

3. Cheques generally pass by successive endorsements, each person so endorsing the paper making himself responsible for its payment, and the cheque thus preserving a complete record of its course in circulation. A bank note leaves no trace of its movement. The last holder neither knows nor cares who has had it before him.

It is scarcely necessary to say that what has been alleged of bank cheques, as showing that they are not money, holds true in a still higher degree of bills of exchange, which are only more formal, slower in circulation, more dependent for their acceptance on the character and presumed competence of the person by whom they are offered, and more full in the record of their course in circulation.

Is Inconvertible Paper Money, whether lacking the quality of present convertibility into coin through the bankruptcy or pecuniary embarrassment of the government or the bank issuing it, or being mere "Fiat-money," circulating under the authority of law, conversion into coin not being expected or

promised—is this money, in the sense of the political economist?

The student of money is, of course, not concluded by the popular use of words, though he may often derive therefrom valuable suggestions of truths not yet discovered, and striking illustrations of accepted principles. The people universally call such circulating paper money. The economists very generally deny that it is money. Who are right in the matter? If our analysis thus far is correct, the question becomes one wholly of fact. Does this paper pass freely from hand to hand? Is it taken with or without respect to the character and presumed competence of the person tendering it? No matter why they take it, whether by force of law or because of its convenience, do men exchange their products or services against it, or do they go about to make exchange in kind, in order to avoid its use? Is there further recourse to the person who has tendered it?

These questions answer themselves. Inconvertible notes, whether inconvertible by delinquency or by intention, are money just so far and just so long as they perform the money function, already so fully described. They may be good money, they may be bad money; but they are money so long and so far as they act as the common medium of exchange, in the sense which has been given to that term. The influence of such money upon industry, trade, and society may be mischievous, may be pernicious; but that is not the present question. It would be just as correct to say that whiskey is not drink, be-

cause one deprecates its use as drink, as to say that inconvertible notes are not money, because one deprecates their use as money. Drink is not necessarily beneficial. Money may be money, in spite of the most injurious effects.

Such as has been described is the function of money: The Common Medium of Exchange. Its importance can scarcely be overestimated. "It has been wisely said," remarks M. Chevalier, "that there is no machine which economizes labor like money."

Illustrations of the use of money taken from a primitive condition of society and industry are to be found in every writer on money and in every systematic treatise on political economy. The perplexities of butchers, bakers, bootmakers, tailors, masons, and carpenters, who in the absence of money should seek to exchange their products or services with each other; the loss of energy and the waste of time involved in securing the "double coincidence of wants and of possessions" which is required in barter, it almost invariably turning out that the person to whom you offer your product or service either doesn't want what you have, or hasn't what you want—these have been dwelt upon, seriously or sportively, by so many economists and popular lecturers that they need not be recited here.

It is fairly a matter of doubt, however, whether these illustrations of the difficulties of barter in a primitive state do not, after all, make an impression so inadequate as to engender views altogether erroneous. The persons taken for the purposes of the

illustration are men known to each other, each working by himself and producing by his own labor and capital the whole of the articles he desires to exchange for others ; the articles taken for the purposes of the illustration are simple necessaries of life in universal request. Under these conditions, it is manifest that the butcher, the baker, and the bootmaker would at last get together, in spite of obstacles, and would exchange their products ; and it is further manifest that, through the natural introduction of a forum or common market place, a device too simple to escape the mind of the reader of such descriptions, these artisans might do this very easily.

But if we step at once forward to the highly organized forms of industry which characterize modern society, and there consider the inconveniences of barter, after the introduction of the general market, or place of common resort, and even after the invention of the credit system, we shall find them such as to constitute a most onerous and oppressive tax upon production, amounting in many, perhaps in most cases, to absolute prohibition.

The multiplication of occupations, the diversification of products, would be subject to such heavy penalties in the way of a complicated and retarded exchange as to be practically suppressed. Rather than submit to the annoyances and loss of time which are necessitated by exchanges in kind, most men would prefer to sacrifice their own special aptitudes and the great advantages of the division of labor, and would make for themselves the whole or the most part of what they required. Even the artisan, who

should have the perseverance to stick to his specialized trade, would generally wait for articles to be ordered before making them, rather than meet the vexation and waste of a tardy and dubious demand for goods produced in advance of orders.

Justly, then, does Gibbon remark, "The value of money has been settled by general consent to express our wants and our property, as letters were invented to express our ideas; and both these institutions, by giving a more active energy to the powers and passions of human nature, have contributed to multiply the objects they were designed to express."

Of the articles which have at one period or another, in one country or another, performed the function of money, it can not be necessary to offer a catalogue here. No small proportion, indeed, of the objects which compose the wealth of primitive communities have now or then, here or there, attained such a degree of general acceptability as to become money.

Wheat, corn, and rye have extensively fulfilled this office. It is manifest that these and other cereals have two important qualifications for use as money: first, through being in universal request for personal consumption as food; and, secondly, in allowing the almost indefinite subdivision of the quantity representing a day's labor. But they are subject to two serious drawbacks: first, in the great weight of the quantity which represents a day's labor; and, secondly, in their liability to deterioration through rust, insects, excessive moisture, undue heating, or by the mere passage of time.

Cattle also have extensively fulfilled this office. Oxen were used as money among the Greeks of the Homeric period. Sheep served the Italians at a later period as the common medium of exchange; and even after the abandonment of Britain by the Romans, we find the inhabitants, in the scarcity of coin, returning to the use of "living money," especially in Scotland and Wales. "It is very possible," says Sir Henry Maine, "that kine were first exclusively valued for their flesh and milk; but it is clear that, in very early times, a distinct and special importance belonged to them as the instrument or medium of exchange."

Cattle and sheep may be either a good money or an inconvenient money, according to the circumstances of the community. In a pastoral state, they present many advantages for use as money. They carry themselves, and thus avoid the principal objection which withstands the employment of grain in this capacity. The opportunities which exist all around for grazing, and the familiarity of every member of the society with the methods of guarding and tending animals, reduce the trouble and risk of using them.

On the other hand, cattle and sheep have two serious drawbacks in such use. The first is that, even where they are most easily reared, each animal represents too large an expenditure of labor to be available for single petty purchases. Even the calves and lambs will scarcely answer all the requirements of small change.

The second drawback to the use of cattle and

sheep as money is the want of uniformity in quality which exists among them. There is great room for choice, even in a picked herd or flock. If goods are to be sold for cattle or sheep, there will always be an apprehension, which will rarely fail to be justified, on the part of the seller, that the buyer will pay in the smallest and lankest specimens to be found. This was the experience of the Massachusetts colony, so long as cattle continued to be received in payment of taxes; and desperate were the efforts of the town treasurers to defend themselves against the invasion of lean kine. The army commissary and the Indian agent of to-day might tell amazing stories—if they would—about the gaunt and puny specimens turned in at the frontier posts, under the ironical designation of four-year-old American steers.

But while cattle and sheep have been found by many tribes and peoples, in a pastoral state, and even when advanced a certain way in the agricultural condition, to be tolerably good money, in spite of the objections indicated, it is evident that the very possibility of answering this requirement fails in all highly civilized States, even though agriculture still forms one of the principal elements of their industry. The cost of keeping animals, and the risk and trouble that attend their nurture and custody, become so great as absolutely to preclude their use as money.

Of the rice money of the Coromandel shore, the cacoo money of the aboriginal Mexicans, the oil money of the Ionian Islands, the salt money of the Abyssinians, the wampum money of the early New

Englanders, the tea money of the Russian fairs, the date money of the African oases, the beaver and sealskin money of many countries, it is not needful to speak. These are the curiosities of our subject.

One great class of substances have a peculiar importance in the history of money, having been used as the medium of exchange from the earliest times and among a wide circle of nations. The metals, especially seven of them, have been found to possess in a higher degree than any other equally considerable class of commodities the material properties required for this purpose.

Iron, lead, tin, and copper, one or all, early became the money of nearly every country whose history we know. The numerous uses of the first named, in the economy of life, civilized or savage, went far to give it almost universal acceptance among all classes and between different communities. The art of mining being in early times very rude, a comparatively small amount of metal represented the labor of days, and thus contained a high purchasing power. Moreover, this metal, though subject in a degree to deterioration by exposure to the atmosphere, suffers almost indefinitely less by loss, by accident, or wastage, than most forms of wealth that are not metallic.

The money of Lacedæmon was of iron; Sweden, when impoverished by the wars of Charles XII., went back to the use of iron money; and this metal still serves the inhabitants of Senegambia in the same capacity.

Lead was extensively employed in exchange by the early Romans, and the early English, and is still given and taken in Burmah, in small payments.

Tin was used by the Mexicans as money, even after silver and gold were known. It was long employed as money in Sweden, and still serves in that capacity among the Chinese, along the shores of the Malay Peninsula, and in Prince of Wales Island.

But of the four metals named copper has the greatest importance in the history of money. From its higher cost of production it superseded iron when that metal came, in the development of mining industry, to possess a value for its bulk unsuited to the uses of exchange, while yet silver was too precious for the ordinary transactions of daily life. During the silver famine of the middle ages copper came back to be the principal money of the people of Europe, and indeed almost the sole money in common circulation, silver and gold being found only in the cabinets of nobles and the caskets of bankers. The employment of copper as money, though in a constantly diminishing degree, has continued in Europe and America down to our day; but this metal has now sunk in all civilized States to the rank of token-money, or small change. Over no small part of the world, however, it is still an important element in the monetary circulation.

Between 1828 and 1845 the Emperor of Russia sought to bring platinum into use as a money metal; but, in spite of its many noble properties, the effort failed, owing chiefly to the extreme difficulty of rendering platinum from ingots into coin, and

from coin into ingots, as the exigencies of exchange might require.

Two of the metals have enjoyed a preëminence in the history of money which has earned for them the proud title : the Precious Metals.

Not that they are the most costly of all. A number of metals are more valuable even than gold ; but this is true only of metals that are found in extremely limited quantity, far below the requirements of a general medium of exchange. Of the two, silver first came to be used as money. We hear of it in early Hebrew history. It was long coined by the Greeks and Romans, while gold remained merely treasure devoted to regal and sacerdotal uses. The extreme beauty of silver, brightest of all the metals, together with its numerous applications in the economy of life, make it an object of admiration and desire among peoples in all degrees of social advancement. Easily fusible, highly ductile, practically imperishable, silver would have filled our utmost conception of a money metal, had not the earth yielded one transcendent product, in comparison with which even silver fades from desire.

"The compendious value of gold," to use Mr. Jacob's expression, allows a vast amount of purchasing power to be concentrated, for conveyance or for concealment, in little bulk. A small planchet of gold has the power to command the labor of days. Humboldt, in one of his memoirs, states that, at then existing prices, one kilogram of gold would purchase 1611 kilograms of copper, 9700 of iron, 20,794 of wheat, or 31,717 of barley.

But while gold is thus precious, it is found in sufficient quantity to allow of its convenient use as an every-day medium of exchange. Were gold as costly as vanadium, the piece in which a workman received his day's wages would require to be handled with delicate pincers like the parts of a watch, and would always be liable to be blown away and lost by an inadvertent sneeze.

The durability of gold, combined with its fusibility, ductility, and malleability, form a group of properties of the highest importance for the purposes of coinage and circulation, while they add greatly to its uses in the industrial and decorative arts. One cubic inch of gold may be drawn out to cover 14,000,000 square inches. Gold may be alloyed and refined, united and divided with the greatest ease, and with absolutely no loss of the pure metal through all the successive processes.

Such, in their comparative fitness for the uses of coinage and circulation, are the several historical money metals. Whether another still more costly than gold remains to be added to the number, is beyond our power to foresee; but it now appears most improbable.

Of the introduction and use of the various paper substitutes for coined metal in circulation, we shall have occasion to speak at a future stage of our inquiry.

CHAPTER II.

THE VALUE DENOMINATOR, OR COMMON DENOMINATOR IN EXCHANGE, USUALLY CALLED THE MEASURE OF VALUE.

WE have exhibited with tedious but necessary iteration the money function. It is, we saw, to serve as the Common Medium of Exchange. This is the office of money. Whatever does this is money, whatever its form or substance.

Nearly all systematic political economists, and nearly all writers in this special department, associate with this function another, as of equal importance. They say money serves both as the Medium of Exchange, and as the Measure of Value.

But, whatever it is which money does, as the so-called measure of value, it is incontestable that it does this incidentally to its work as the medium of exchange. Money can not be generally employed in the exchanges of a community without doing that which is commonly called measuring value. Hence it seems to me more logical and conducive to the better understanding of the subject to say that the money function is to serve as the Medium of Exchange; and that whatever does this is money; and at the same time to point out that, incidentally to its main office, money also does that which is called Measuring Value.

But what is this work which is commonly spoken of as an original function of money, co-ordinate with that first described, and of equal or even superior practical importance, but which we prefer to treat as an incidental and subordinate function?

Let us quote Mr. J. S. Mill's statement:

"In order to understand the manifold functions of a circulating medium, there is no better way than to consider what are the principal inconveniences which we should experience if we had not such a medium.

"The first and most obvious would be the want of a common measure of values of different sorts. If a tailor had only coats and wanted to buy bread or a horse, it would be very troublesome to ascertain how much bread he ought to obtain for a coat, or how many coats he should give for a horse. The calculation must be recommended on different data every time he bartered his coats for a different kind of article, and there could be no current price or regular quotations of value.

"As it is much easier to compare different lengths by expressing them in a common language called feet and inches, so it is much easier to compare values by means of a common language called pounds, shillings, and pence. In no other way can values be arranged one above another in a scale, in no other can a person conveniently calculate the sum of his possessions; and it is easier to ascertain and remember the relations of many things to one thing than their innumerable cross-relations with one another."

Professor Stanley Jevons thus illustrates the advantages of having a single commodity in terms of which all others may be quoted:

"In a state of barter the price-current list would be a most complicated document, for each commodity would have to be quoted in terms of every other commodity, or else complicated rule-of-three sums would be necessary. Between one hundred

articles there must exist no less than 4950 possible ratios of exchange. . . . .

"All such trouble is avoided, if any one commodity be chosen, and its ratio of exchange with each other commodity be quoted. Knowing how much corn is to be bought for a pound of silver, and also how much flax for the same quantity of silver, we learn, without further trouble, how much corn exchanges for so much flax."

It will have been observed that Mr. Mill makes the measuring of values to be the prime function of money. "The first and most obvious," he says, of the inconveniences of doing without money, "would be the want of a common measure of values;" and Professor Bowen says, "We can do without money as a medium of exchange, and can even barter commodities for other commodities without the use of any medium. But we can not do without money as a common standard or measure of value."

As to Mr. Mill's assumption that the first felt inconvenience of barter would be a common measure of value, I must say that I know not the slightest shadow of a reason for supposing that the need of a common measure of value was ever recognized, distinctly or vaguely, by any nation or tribe of men, in any condition of life. Even the conception of this function did not arise until philosophers, hundreds and thousands of years after money came into use, looking backward upon the course of the development of industry and trade, and looking around upon the phenomena of a highly organized social system, rose to the appreciation of the truth that money, first adopted to meet the painfully felt want of a medium

of exchange, became, by the very fact that it was exchanged against all commodities by turns, the means of making easy and precise comparisons between the values of those commodities themselves.

To Professor Bowen's remark that we can do without money as a medium of exchange, but can not do without it as a common standard, or measure of values, it is enough to reply that if we were to do without money in the former capacity, we should perforce have to do without it in the latter, inasmuch as it is only by being actually used as a medium of exchange that the power of money to purchase each commodity by turns becomes known, and hence comparison between commodities in respect of their power to command money becomes possible.

I must therefore insist upon regarding the function commonly called measuring values as incidental and subordinate to the first function of money, that of acting as the Medium of Exchange.

But precisely what is this so-called measuring of values by means of money? Does not the very collocation of words in the term reveal a misconception? Value, economists are pretty much agreed, is a relation; and for the purposes of the present discussion we may so take it.

But surely a relation, a ratio, can not be measured! You do not measure the relation of a mile to a furlong; you express it, as 8 : 1. You use a common language for the two quantities. You take a common term or denominator for the two distances, and thus set them in immediate comparison with each

other. Were you, for example, to say that a mile is 63,360 inches, and a furlong one twenty-fourth of a league, the untechnical and unskilled hearer would form no idea of the relation between a mile and a furlong. Instead of this you take one quantity—the furlong—as unity, and state the other in terms of it; and the least learned and least practised hearer at once apprehends the relation.

This is precisely what is accomplished by money. Let us suppose that one pound of tobacco is worth four pounds of flour; one pound of flour worth half a pound of tacks; one pound of sugar worth two pounds of rice, while three pounds of rice are worth one pound of tobacco. Now suppose sugar and tacks are to be exchanged against each other, what will be the ratio of exchange? The problem is a very simple one, almost impossibly simple for an actual transaction. The commodities taken are few, and the numbers involved are all factors of twenty-four.

Let us see: if one pound of tobacco is worth four pounds of flour, and one pound of flour is worth half a pound of tacks, tacks are worth half tobacco, by weight. If one pound of sugar is worth two pounds of rice, and three pounds of rice worth one pound of tobacco, sugar is worth two thirds tobacco, by weight.

If, then, tacks are worth half tobacco, and sugar is worth two thirds tobacco, tacks are worth three fourths sugar, by weight—that is, four pounds tacks should buy three pounds sugar.

Should we increase the number of commodities

compared manyfold, and introduce denominators whose least common multiple should be not twenty-four but many hundreds or thousands, as might be the case were actual exchanges to be taken, the difficulty of performing the computations necessary to ascertain the terms of mutual exchange of two articles might be indefinitely increased.

But if you introduce money, and express the value of all commodities in terms of money, it becomes very easy to compare each commodity, by turns, with any other. An unquestionably great service has been rendered to production and trade, not through measuring values, but through expressing them by means of a common denominator, so that they can be readily brought into comparison.

This idea that values are measured by money has a great deal of tenacity. Thus Professor Thorold Rogers says, "We need some common measure of value as we need measures of length and capacity." But length and capacity are positive properties of things. Value is not a property of any thing. It arises wholly out of relations which exist between things. We measure the length of a thing by laying down alongside it some other thing whose length is known. We measure the capacity of a thing by filling it with something else whose quantity is known. Values are not determined by any such bringing of one thing to another. The word measure, therefore, should be applied to value, if at all, only in a consciously metaphorical sense, by a license of speech. Yet Professor Price declares that the comparative worth of every commodity "is

measured by identically the same process as that by which the length or weight of any thing can be ascertained," and Professor Bowen, in the paragraph from which we have already quoted, goes on to say, "A measure must be homogeneous with the thing measured. As that which measures length or capacity must itself possess length or capacity, so that which measures value must have value in itself, or intrinsic value." That is to say, paper money can not perform this function of money in any degree, or under any circumstances.

If such tremendous consequences are to follow the use of the word measure, as applied to money, it behooves us to inquire very seriously and carefully whether the word ought ever to be so applied at all.

If the popular apprehension and even the expressed views of many writers in economics are correct, something like the following is the process by which terms of mutual exchange among commodities are reached: A piece of gold or silver, which cost a day's labor, is in some way brought successively into comparison with three different objects, which are thereby found to have cost, severally, let us say, five, ten, and fifteen days' labor, in consequence of which determination not only will the piece of metal exchange for one fifth, one tenth, and one fifteenth, respectively, of A, B, and C; but A will exchange for one half D, and for one third C. "The cost price of the goods," says Professor Price, "is compared with the cost price of the gold."

What is, in fact, the method by which the ratios

of exchange between the piece of metal and equal quantities of A, B, and C are determined?

Let us bring the matter down to its pure elements by supposing that in a given community, where gold has been and still is of such universal acceptability as to become the general medium of exchange, there exist a million pennyweights of this metal; that the country itself yields no gold; that intercourse with foreign countries is, for the time, cut off so that none can be imported; and, lastly, that gold is used solely as money and not at all in the arts. Under such conditions articles will be exchanged for pennyweights of gold without the slightest reference to the cost of producing the metal. It is literally true, without the smallest qualification, that, in the words of Professor Jevons, "Labor once spent has no influence on the future value of any article." How, then, can the gold measure the value of the commodities produced within the community?

The answer is, It does so in the only way in which money ever measures values. Each producer will strive to bring to market that commodity which will command for him the greatest number of pennyweights of gold for a certain exertion and sacrifice on his part; and through the operation of this principle, and of this principle alone, the relative worth of all commodities will be determined; not through a comparison of the amount of labor required for the production of each, by turns, with the amount of labor required for the production of the gold, but through a comparison of the amounts of

labor severally required to renew and keep up the stock of the different commodities themselves.

At first we will suppose wheat, corn, and oats exchange for equal amounts of gold; but the farmers soon find that they can raise oats more easily than corn, corn more easily than wheat; and consequently many farmers bring oats, and much of it, few farmers bring corn, and little of it; no farmers at all bring wheat. Why should they? Hence, as the existing stock of wheat begins to disappear, more and more gold is offered for wheat, until the point is reached where the farmer gets as much gold for a day's work in raising wheat as in raising oats. Corn, by the operation of the same principle, comes to command as much gold as is given for the same exertion and sacrifice which take the form of a larger quantity of oats or of a smaller quantity of wheat.

In the same way it may be that at first a cow would exchange for a cart-load of wheat; and here the correction of the terms of exchange would be made more slowly; but, sooner or later, if not in one season, then in the next, a great many farmers would make up their minds that, what with a cow now and then getting into the wheat field, or choking herself under the apple tree, or overlaying her calf, they could get more gold with the same amount of labor and annoyance and anxiety in raising wheat than in raising cows. In consequence, fewer and fewer cows would be brought to market, but more and more loads of wheat. Cows would, therefore, fetch more and more gold, loads of wheat less and less.

The same process would go on as between different occupations. If the agriculturists came to know that their products commanded less gold for a given exertion and sacrifice (all things—health, security, comfort—being taken into account) than the products of the mechanics of the community, a movement of laborers would begin, painfully and slowly, it may be, out of agriculture into mechanical industry, in order to get the benefit of the higher returns.

Now it is in this way that products are differentiated in exchange according to the cost of renewing the stock. The same thing would be effected, but more slowly and very imperfectly, without the use of money. The introduction of money enables the comparison, as to the degree of remunerativeness of different occupations, to be made quickly and exactly. This it does, not by measuring values in any sense, but by affording a value denominator, or common denominator in exchange, by means of which all commodities are placed one above another on a scale of prices.

A word has just been used which needs to be defined. What is price? How is it to be distinguished from value? Value is purchasing power: power in exchange. The word price expresses the power a thing has to purchase money. It is the money-value of commodities.

The following is the statement of M. Cherbuliez: "We call the price of a thing the quantity of money it is worth—that is to say, its value expressed in money. No article has more than one price, while it may have many different values; and

every thing has one price, except money itself." That is, there can be no money value of money.

Precisely what money has been shown as doing in the somewhat extended illustration given, money does for every community where it is employed; and this is all it does anywhere. We have seen that it is not the office of money to measure values, in any such sense as that the cost of producing any integral part of the money in circulation is compared with the cost of producing the commodities against which it is exchanged. On the contrary, we have seen that the articles themselves which are to be exchanged against money are compared as to the respective cost of renewing the stock of each. All this would equally take place, the differentiation of commodities in the market would be effected, the price-current would be created, had the gold in the first instance cost nothing at all, as, in fact, it has taken place without any reference to what the gold actually did cost.

All that has been described would equally have taken place had the money of the community consisted of paper inconvertible into coin, or even of paper not promissory of coin, mere fiat-money, as it is called, provided, only, its currency had been maintained either through general consent or by force of law, so that producers expected and desired to exchange their products and services for pieces of such money. I am speaking only of the function of money as the measure of value, so called, or, as I prefer to say, the value denominator. This function money of mere convention, of no "intrinsic

value," to use Professor Bowen's phrase, is in every way competent to perform.

Given the fact of a general desire for one article of uniform quality, which is susceptible of easy and exact division, we have all the requirements of a common denominator in exchange satisfied. The effort of every dealer to obtain as much as possible of this one article for each and every part of his stock, the wish of every producer to bring to market the product involving the least labor which will purchase a given quantity of this article—these must result in ranging all commodities, according to the cost of replacing them, upon a scale of prices the degrees of which shall be expressed in terms of this one article, money.

The point we have reached enables us to take up with advantage the question, What is the relation between the amount of money in any country and the general scale of prices existing therein? A question which, if not intrinsically the most difficult in political economy, is perhaps that one respecting which, for the want of precise definitions, the most various and contradictory opinions have been expressed by economists of reputation. As value is always determined in the relation existing between demand and supply, so price, which is money-value, must be determined in the relations between the demand for and the supply of money. So far our way is clear. But what constitutes the demand for money? What constitutes its supply?

A popular notion connects the demand for money in some way with the amount of accumulated wealth

in a country. For this opinion, however, no foundation has ever been shown worthy of consideration. A somewhat similar view makes the relation to exist between the demand for money and the annual production of wealth. But the use of money arises out of trade. In the amount and character of the trade of a country must be found the demand for money, respecting which we inquire.

"The demand for money," says Mr. Mill, "consists of all the goods offered for sale. Every seller of goods is a buyer of money, and the goods he brings with him constitute his demand."

This remark of Mr. Mill assumes that all goods offered for sale are to be exchanged for money. So far as barter exists, so that goods are exchanged against goods; so far, also, as credit in any of its forms is introduced, so that purchase and sale eventually offset each other, the demand for money is correspondingly reduced.

This diminution of demand for money through the agency of credit, whether between individuals, or at banks and clearing houses, is a fact of great importance in the modern organization of trade. This it is which enables England to accomplish the vast sum of her exchanges with an amount of money, metallic and paper combined, far below that required by less wealthy countries for a much smaller body of transactions.

What constitutes the supply of money?

"The supply of money," says Mr. Mill, "is the quantity of it which people are wanting to lay out; that is, all the money they have in their possession, except what they are hoarding,

or at least keeping by them as a reserve for future contingencies. The supply of money, in short, is all the money in circulation at the time. . . . Whatever be the quantity of money in the country, only that part of it will affect prices which goes into the markets for commodities, and is there actively exchanged against goods."

We seem to have ascertained what constitutes the demand for money and the supply of money. But each of these is, in fact, a quantity of two dimensions, and we have thus far but one dimension of each. The demand for money is made up of the goods offered for money, multiplied into the number of times these goods are sold or resold, while the supply of money consists of the quantity in circulation, multiplied into the average number of times that each piece changes hands in exchange for goods.

The nimble sixpence does the work of the slow shilling. Were we making arrangements for the transportation of a large body of grain from Albany to Boston, it is evident that the number of cars of a given capacity must sustain some necessary ratio to the bulk to be transported; but it is manifest that we could not ascertain how many cars would be required to carry so much wheat until we knew how often on the average the cars could make the trip. So we say of the supply of money; we need to know not only its volume, *i.e.*, the number of coins of a given weight and fineness of metal, the number of notes or bills, if the money be of paper, but also its rate of movement, or, as it is usually called, its rapidity of circulation.

Hence, with a given demand for money, resulting

from the volume of goods offered for sale, compounded with the average number of sales or re-sales, a given level of prices will be maintained with a smaller actual quantity of money according as population is more compact, the facilities for transportation are greater, and the telegraph, post and parcel express are better conducted. Such are the elements of the demand for money and of the money supply.

The money supply has nothing to do with placing one commodity below or above another on the scale of prices; but it determines what the general scale of prices shall be. Tea will be worth more than coffee, coffee than tobacco, tobacco than sugar, sugar than flour, whether the money supply be great or small.

Changes, indeed, of the money supply may have the effect to raise or lower the prices of some commodities more rapidly than others, with consequences to industry, trade, and society which we shall have occasion hereafter to discuss; but when time has been given for readjustment, the place of each commodity on the scale will be found to be the same in whatever terms the degrees of that scale may be expressed.

We have thus far assumed, for the purposes of our discussion, a certain definite amount of gold in circulation, say 1,000,000 dwt., with no current production of gold within the community, and with no importation from abroad. Let us now extend our view to the entire commercial world, and assume the amount of gold existing to be 100,000,000 dwt.,

but still retain the exclusion of any present production of the metal. It is evident that precisely the same process of arranging all the commodities in the market upon a scale of prices, according to the comparative cost of renewing the stock of each, which has been described in the case of a single community, would go on in every country, the scale of prices in each being higher or lower according as its money supply should be greater or smaller.

And this brings us to another step in the philosophy of money. What is it that determines the money supply of each country by turns? What is the force, and what the mode of its operation, by which this sum of 100,000,000 pennyweights of gold is to be distributed among the several trading communities?

The Territorial Distribution of money is effected through the agency of Price. If the stock of money in any country becomes so large that, its rate of movement being what it is, the goods offered in the market for money can be exchanged as often as required, and yet a higher level of prices be maintained than exists in other countries, that country becomes a good country to sell to, because prices there are high, and, for the same reason, becomes a bad country to buy from. Men seek to buy in the cheapest and to sell in the dearest market. The immediate necessary consequence is that the exports of domestic products from a country having such a scale of prices are diminished, while its imports of foreign merchandise are increased.

If, then, the money of that country is such as has

equal acceptance in foreign countries, a movement for its exportation to settle the disturbed balance of exchanges at once begins. Just as the bubble in the spirit-level runs out of sight so soon as the surface on which it is placed departs in the smallest degree from the horizontal, even before the practised eye of the mason or carpenter could detect the inclination, so gold and silver commence to flow from a country where they have less purchasing power than in surrounding regions, before the most accomplished statistician or banker would be able to say that such a condition of prices had been reached.

Do we mean by this that the prices of commodities must be the same in all countries, or else a money movement will take place from the country of the higher to the country of the lower prices? Only with a qualification. The cost of transportation between countries must first be taken into account as an element in the prices of commodities. Thus, if it costs $2 (including charges for cartage, freight, insurance, interest, and commissions) to carry a barrel of flour from New York to London (New York being a great flour exporting market, as London is a great flour importing market), the price of flour at New York and at London is the same for all the purposes of the money movement, when a barrel brings $8 in the former city and $10 in the latter.

And why, let us repeat, does a barrel of flour in New York at a given moment bring $8 in gold? Because there is gold enough in New York, and it is of sufficiently active circulation, to allow all the barrels of flour which are then and there offered

for money to pass for $8 each, at the same time that hundreds of other commodities in varying amounts are also being exchanged against gold, at prices corresponding to their respective values. There is a given amount of work for gold to do in New York at that time. If there is just enough gold there, and it moves about just fast enough to do that work, and yet allow prices to remain as high (cost of transportation taken into account) as in the countries with which New York trades, then no movement of money takes place. Why should it? Gold can buy no more by going elsewhere than by staying where it is. It remains because it has no motive to go, and because movement always involves cost. But if there is so much gold in New York at the time that all the exchange transactions requiring to be made can be effected at prices higher than those which prevail elsewhere, gold immediately sets itself in motion towards its better market, where it can buy more of other commodities.

If, again, there is so little gold in New York (assuming, still, this to be the money and the only money of the city) that all the flour and all the dry goods and groceries and hardware and other commodities offered in the market for money can not be exchanged against gold except at prices lower than those in other markets, a movement in the contrary direction is initiated. New York at once becomes a good market to buy in, because prices there are low. It is for that very reason a poor market to sell in. Hence its exports increase while its imports

diminish. It has less to pay; it has more to receive; and since gold is, as the prices prevailing testify, the scarcest article there, relatively to the demand for it, gold goes thither, as to its best market, until the equilibrium is restored, and gold will no longer purchase more there than elsewhere.

We see, then, what is for the interest of every community in this matter of the Money Supply. It should possess just such an amount as, with existing facilities, will effect the exchanges there requiring to be made, through the employment of money, at prices corresponding to those of the countries with which it has commercial relations. It should have no more and no less, because neither excess nor deficiency can do the community any good, while either condition must be followed by a movement of money, either outward or inward, which will produce a greater or smaller disturbance of trade and production.

In case of an export of money from any country in consequence of an excess in the supply, what is to determine which part of the stock shall go? Is it to be purely a matter of accident which coins shall "leave their country for their country's good"? Will the coins be drawn from those nearest the place of shipment, or will some other principle of selection be adopted?

Clearly, if the coins of the same denomination circulating in the community are of unequal weight or fineness, the best will be picked out to be sent abroad. Every banker, every merchant, every person having considerable amounts of money

passing through his hands, will be on the alert to detain the heavier pieces, while the lighter ones will be thrown back into circulation. For the latter purpose both classes of coin are of equal value; but for export the coins vary in worth according to the amount of fine gold or silver which they severally contain.

This principle is known in the literature of finance as "Gresham's Law," deriving the name from Sir Thomas Gresham, founder of the Royal Exchange of London. As it is usually stated, namely, that an inferior money will always drive out and replace better money, the theorem is false. It is only when the body of money thus composed of diverse elements is itself in excess of the wants of trade, that the better part begins to yield place and retire from circulation. Mr. Ricardo very justly apprehended and clearly expounded this necessary qualification. "It is," he says, "a mistaken theory to suppose that guineas of 5 dwt. 8 gr. can not circulate with guineas of 5 dwt. or less. As they might be in such limited quantity that both one and the other might actually pass in currency for a value equal to 5 dwt. 10 gr., there would be no temptation to withdraw either from the circulation; there would be a real profit in retaining them."

When, however, the aggregate amount of the two or more sorts of money in circulation becomes excessive—that is, greater than the community's distributive share of the money of the world, the principle explained above begins at once to operate. In the same way, if a country have both metal

money and paper money, and the two jointly are in excess, it will be the metal money which will go abroad, where it will find acceptance, as the paper would not.

We have already seen how difficult it is to ascertain the amount of money required to effect the exchanges of any particular country. We now see that it is not necessary that it shall be ascertained. If the money of a community is composed of that which has acceptance in the communities with which it trades, and if no interference with the natural movement of money is allowed, each country will receive its due distributive share of the world's stock—that amount which will best perform its exchanges.

This clearly implies that poor and young countries will have little money; and it is not strange that their inhabitants should complain of the allotment, and make strenuous efforts to attract and retain money in defiance of the law of its distribution, failing to see that the real evil from which they suffer is paucity of production and poverty of capital, due to climate, to soil, to vices of industrial character, or merely to the newness of settlement; and that the only cure is to be found in the extension and diversification of production which will bring trade and with trade money.

We have thus far in our discussion of the relation of the Money supply to Prices assumed that there was no current production of the precious metal, gold, which, for convenience of illustration, we have taken as the sole money of all commercial countries.

On the contrary, we have assumed production to have ceased after a definite amount, 100,000,000 pennyweights, had been brought into use. We have seen that under this condition the various commodities in the market are exchanged for gold at rates varying according to their own comparative cost of production, or rather the cost of renewing the stock, but without any, the slightest, reference to the original cost of producing the gold itself.

How will this be changed if we take off the inhibition upon further production, and admit the element of new gold coming into the market? Not at all. The law of prices will remain the same. But it may be asked, Will not the cost of bringing in the new gold determine the rate at which the whole stock will exchange for commodities—that is, determine prices? By no means. On the contrary, the rate at which the existing stock exchanges for commodities—in other words, current prices—will determine whether any new gold shall be produced or not.

We can test this very easily. Suppose that, besides the 100,000,000 pennyweights of gold already produced, there is known to be a vastly greater quantity in the Rocky Mountains, let us say 1,000,000,000 pennyweights. Now, whether the smallest part of this vast deposit shall be extracted—except in merely tentative operations—will depend on whether, with the supply of money at present existing, and the demand for money for all the uses of trade, a pennyweight of the overt 100,000,000 will exchange for enough beef, bread, clothes, fuel, and other necessaries of life to keep a man alive and in working

condition while he is extracting a pennyweight of the covert 1,000,000,000. If not, were the treasures of the mountains multiplied twenty-fold, they will not be revealed till the rocks that hide them are melted in the final conflagration. Since, then, the existing stock of money is exchanged for commodities on terms which are alike irrespective of its own original cost of production, and of the cost of producing a new mass of metal, the present cost of production is of consequence, in respect to prices, only so far as it influences the future supply.

Let us take a case. Suppose the production of gold—still treating it as the sole money of the world—to have completely ceased, as indeed it has practically ceased more than once in the past, and that the existing stock is such, and the demand for its employment such, that a pennyweight will buy a day's labor, or products which cost a day's labor. Now suppose that new mining regions of vast extent are discovered, in which five pennyweights a day can be obtained by an ordinary laborer. How will prices be affected thereby? Immediately, not at all. It will be a capital thing for the owners of mines. The whole difference between the cost of the production of gold on their lands, say, one fifth day's labor, *per dwt.*, and the power of gold to purchase labor, viz., one day, *per dwt.*, will go to them as royalty, unless, indeed, they shall be so desirous of rapidly realizing their gains as to offer very high wages to attract laborers at once in great numbers, in which case the laboring class will in some degree share the advantage. The prices of

certain articles, too, those which are most in demand among laboring populations, will rise in value, but this will only take place at the expense of articles less immediately in request. The general level will not necessarily be disturbed, except perchance as speculation might induce an increase of trading, and so enhance in some degree the demand for money.

Meanwhile, under the impulse of extraordinary profits, the production of the precious metal, which has entirely ceased at the old mines, is going forward in the new mines at an unprecedented rate; yet, even so, it requires some time to produce an appreciable effect upon the existing stock, the accumulation of hundreds and thousands of years. Little by little, however, the purchasing power of gold is diminished, not because it costs less to produce it than formerly, but because there is now more of it. Year after year, decade after decade, generation after generation, the depreciation of gold goes forward under the increasing productiveness of the mines.

The last four centuries comprise two periods of rapidly increased production of the precious metals —in one case, silver, in the other, gold—under the stimulus of extraordinary mining profits, due to the discovery of deposits where the metal could be produced at a cost far below the purchase power which it then enjoyed in the markets of the world.

The first period began in 1545, with the discovery of the silver mines of Potosi, and extended to the middle of the century following. According to Mr. Jacob, the power of silver to purchase commodities

fell to 21·3 per cent of what it had been at the beginning of the period. Indeed, Adam Smith states that, owing to the delay of the new silver in reaching England *via* Spain, the whole of this effect was wrought in that country between 1570 and 1640.

The second period began in 1848, with the discovery of gold in California, followed as that was by the Australian discoveries of 1851. But though the production of gold was for twenty years far beyond any thing previously known, it wrought nothing like so extensive an effect upon prices as was caused by the introduction of the new silver from South America in the sixteenth century, the reason being that in the latter case the highly stimulated production followed upon the Silver Famine, which had given silver a purchasing power many times greater than it had possessed under the Roman Empire, while the Californian and Australian gold came into a market hungry indeed but not starved.

To resume our illustration. Let us suppose that, at the point where the stock of gold in use has been so largely increased that two pennyweights of gold can be purchased by a day's labor, the mines are found to be utterly exhausted. We shall then have a volume of gold in circulation the several parts of which were mined at very different costs of production. Yet the whole mass will have a uniform value, determined wholly by the demand for its use in exchange transactions. No distinction will exist in the market between the gold produced at the cost of $\frac{5}{8}$, and that produced at the cost of $\frac{1}{8}$ day's labor a pennyweight.

Will gold be produced at the old mines, now that the ruinous competition which for a time closed them has ceased? Not at all. Though gold can no longer be produced anywhere more cheaply, these mines will not be worked, because the stock brought into existence during the period of highly stimulated production is, and remains, so great that a pennyweight will command much less than a day's labor or the supplies needed to support a laborer a day, while a day's labor in the mines will only produce a pennyweight, as heretofore.

Such a cessation of mining industry * as is here described followed the invasions of the Roman Empire by the barbarians in the early centuries of the Christian era. For the space of many centuries not enough of the precious metals was produced to replace a tithe of the current loss by wear and by accident. The flow of gold from the Orient ceased entirely, and for a considerable portion of the period there is no record of any production whatever of silver in Europe. Even the art of mining was lost.

* A very silly book has been published within the past year, in which, with much vituperative abuse of eminent economists, from Aristotle to Mill, the author maintains the astonishing thesis that "as the precious metals are always in demand at the cost of their production, their value is absolute, depending upon one condition—cost. That of all other articles is relative, depending upon two conditions—demand and cost." How any thing which depends upon even one condition can be absolute, the author does not vouchsafe to tell us; nor does he undertake to show how the cessation of mining industry is compatible with his assumption that "the precious metals are always in demand at the cost of their production."

During all this period the precious metals were steadily advancing in value, at first through the reduction of the stock by wear and tear, and, at a later period, through reviving production and trade, which made a larger and larger demand for money. An ounce of silver under Charles the Great would purchase many times as much labor as under Augustus, because there was far less silver in the later period. An ounce of silver under Charles V. would purchase much more labor than under Charles the Great, not because there was so much less silver, for the Saracens had brought about a revival of mining industry in Spain, and the mines of Hungary, Silesia, and the Hartz had done something to repair the waste of the silver supply, but because there was so much more need of silver to perform exchanges.

Perhaps some one has detected a seeming inconsistency between the parts of the argument. It may be said, is not the value of gold or silver, like that of corn or cotton, determined by the operation of supply and demand? Yet have you not stated that each commodity will be arranged upon the scale of prices according to the comparative cost of renewing the stock of it, while you deny that the value of gold and silver as money has any necessary relation to the present or the prospective cost of producing them?

The objection brings to light the most characteristic difference between money and commodities. The value of every commodity conforms more or less rapidly and exactly to changes in the cost of pro-

duction, without awaiting an actual alteration of the supply, either in the way of increase or of diminution. Thus, if coal had been produced at a certain price, and new fields of ampler extent were to be discovered which would allow coal in indefinite quantity to be marketed at half that price,* the coal in the market would at once fall one half, or something near that. The known ability to replace the stock at half the cost would be sufficient to bring down the price without awaiting an actual increase of the supply. Indeed, that increase of supply might not take place at all. If the community had previously consumed all the coal it had need of, no more coal might be produced at half price than before. The money saved in buying coal might be applied in buying more of some other article. Probably some increase of consumption would be encouraged and a corresponding increase of supply would result; but this would not be essential to the reduction of the price. The increased production would, then, not be the cause, but the effect, of the lower price.

With money, however, a change in the cost of supply is not discounted in the effect on prices. General prices are not altered, except as the result of an actual alteration of supply, either in the way of increase or of decrease. Potential alteration is not sufficient, for prices are nothing but an expression of the terms at which commodities are actually exchanged for money; and if there are no more and no fewer commodities to be exchanged, they

* We are writing as if competition in supplying the market existed.

can not be exchanged at prices either higher or lower unless there be more or less money. Otherwise either some of the commodities offered would fail to be exchanged, which would bring down prices, or else some of the money would fail to find employment in exchange, which would send prices up.

"Alterations, therefore, in the cost of the production of the precious metals," says Mr. Mill, "do not act upon the value of money, except just in proportion as they increase or diminish its quantity, which can not be said of any other commodity."

Only one point remains to be covered.

We have, thus far, to avoid an unnecessary complexity of conditions, assumed that gold, in the successive cases taken, is used as money only, and not at all as ornament or in the industrial arts. How will the action of money as the Value Denominator or Common Denominator in Exchange be affected by the use of gold otherwise than as money?

Not at all. The application of gold to such uses only influences the supply of gold as money; and we have seen that, except for great and sudden changes, the differentiation of commodities, according to the comparative cost of renewing the stock, and their arrangement upon a scale of prices, is effected equally well with a small as with a large supply.

The use of gold in the arts, decorative and industrial, has nothing to do with the purchase power of the gold used as money. On the contrary, it is the purchase power of gold, as money, which primarily determines how much gold shall be consumed in the arts.

CHAPTER III.

THE STANDARD OF DEFERRED PAYMENTS, USUALLY CALLED THE STANDARD OF VALUE.

WE have seen that when a man accepts money in payment for the product of his labor, he parts with that which, presumably, was capable of gratifying in a higher or lower degree his own tastes, appetites, or imperative bodily needs, and takes, instead of it, something which he does not intend or desire personally to consume or enjoy, or use in any other way than as the means or medium of securing later or elsewhere that which shall satisfy his individual wants.

This is involved in the very term Medium of Exchange. A sale of goods for money is only half a transaction; the other half takes place when the money itself is, in the phrase of certain economists, sold for goods.

This second half of the transaction may not occur till after an appreciable interval. It may be days, weeks, or even months, before the holder exchanges the money for commodities for his individual consumption. He meanwhile reserves his right to enjoy the products of others. All this time the first purchaser has been in possession of the products of another man's labor. Perhaps those products are wholly consumed long before the original producer

has derived the slightest enjoyment to himself personally from his exertions or sacrifices.

It is this view of the operation of a Medium of Exchange that M. Bastiat sets forth in the following familiar passage:

"You have a crown-piece; what does it mean in your hands? It is, as it were, the witness and the proof that you have at some time done some work, which, instead of profiting by, you have allowed society, in the person of your client, to enjoy. This crown-piece witnesses that you have rendered a service to society, and, moreover, it states the value of it. It witnesses, besides, that you have not received back from society a real equivalent service, as was your right. To put it in your power to exercise this right when and how you please, society, by the hands of your client, has given you an acknowledgment, a title, an order of the State, a token, a crown-piece, in short."

We see, thus, that it is of the essence of a money payment that the seller parts with the product of his labor, receiving therefor at the moment that which has no power in itself to satisfy any one of his wants, but which will enable him at any time and anywhere to select those products of others which shall be most agreeable or useful to him in kind, in form, and in quantities at his pleasure.

Whether this, which thus serves him as an assurance or pledge that he shall be able practically to exercise his right of selecting objects for his own consumption, shall consist of metal or of paper—whether it shall embody in itself a definite amount of labor, or depend for its acceptance on the credit of a bank, or the decree of a government—is a matter of indifference so long as it does, in fact, give

the holder this assurance. Such is the nature of a sale for money.

We are now to contemplate those large classes of exchange transactions where the producer parts with the fruits of his labor, not only not obtaining therefor such of the products of others as are suited to satisfy his wants, but not even receiving at the time that which constitutes in all cases of money payment his assurance—or, as it were, the pledge of society—that he shall obtain such products when and where he pleases.

All exchange transactions of this class are called Sales on Credit, as distinguished from Sales for Cash. The buyer promises, with more or less of formality, with more or less of guaranty, that at some future time he will make payment in kind and amount as stipulated.

Now, inasmuch as sales on credit in the modern organization of trade far exceed in importance the sales made for cash, it is desirable that we should see clearly wherein consists the economical difference between the two classes of transactions.

The points of difference are three:

First. In the sale for cash it rests with the seller to decide for himself when he will realize his own enjoyment. He may, as we have seen, keep the money for weeks, or even months, without spending it; but then, on the other hand, he may spend it within a few days, or even hours, at his own choice. In sales for credit, on the other hand, a period is generally set, either by positive agreement or by mutual understanding, during which the seller is to

forego the right to receive the equivalent of what he parts with.

Second. The interval between one's parting with the products of his labor and his realizing his own enjoyment in consideration therefor is, in fact, very much longer in the case of credit than of cash sales; longer, doubtless, in the ratio of months to weeks, or even of years to months.

Third, and most characteristic and vital. In the sale for cash the account between the buyer and the seller is closed, the seller accepting that which discharges the buyer from all further obligation. Thereafter his claim (in the sense in which the term is used by M. Bastiat) for an equivalent in enjoyment of that he has parted with, is against society at large. In the case of a sale for credit, the seller not only does not receive an equivalent in enjoyment at the time of the transfer, but he acquires no claim upon the community; the account between him and the buyer remains open; and it is from the buyer alone that he looks ultimately to receive an equivalent.

From these characteristics of sales on credit, taken in conjunction with the vast number and extent of sales so negotiated, arises the great importance of the third function attributed to money, viz., of a Standard of Value, so called.

We shall, I think, agree that the term is unfortunate. It is strange if the English language affords no more distinctive names for two different functions of money than "Measure of Value" and "Stan-

dard of Value." Our conception of a measure involves that of a standard, and *vice versa*.

Why Measure; why not Standard?

Why Standard; why not Measure?

Both terms can not be good; but, in fact, neither term is correct. We have seen the objections to the former; there is even more to be said against the latter. Value is a relation, and therefore can not be measured, but only expressed or stated. But value is, in the very nature of things, a phenomenon which is subject to incessant change; therefore there can be no standard for it. So palpable is this objection that some writers, who still cling to the term Measure of Value, abandon that of a Standard of Value.

What term shall we substitute for this insufficient and misleading title?

If it be the highest merit of a scientific name to direct the attention of the hearer to the very nature and office of the subject, what could better answer this requirement in the present case than to describe the function under consideration as a Common Standard of Deferred Payments?

We saw in Chapter II. that money acts as a Value Denominator incidentally to its performance of the function of a medium of exchange; that it is only by and through its being exchanged, by turns, against all classes of commodities in the market, that these commodities become ranged upon a scale of prices according to the comparative cost of renewing the stock of each. The function of a Standard of Deferred Payments is not in the same way incidental

to that of a medium of exchange. In theory one article might be the means of present payment, while another article might become the means of effecting all deferred payments.

As a matter of fact, the same article is almost universally used for both purposes; and so great has become the importance of the latter class of payments in modern industrial and commercial society, that that article alone becomes money for the purpose of current purchase which has been adopted as the standard of deferred payments. This has been strikingly shown in the effects of recent legislation in many of the countries of Europe respecting silver. To deprive either of the metals of the power to pay debts is greatly to impair, if not to destroy wholly and at once, its usefulness as a medium of current payments.

What is it that is to be desired in a Standard of Deferred Payments?

Is it not that it should place the former seller, the creditor, precisely where he would have been had he been paid at the time the sale took place? If I have sold my farm with a stipulation that I shall receive a certain amount of money in full satisfaction at the end of five years, that would be a perfect standard for the purpose, which should ensure that at the close of the term of credit I shall be in precisely the same condition (except so far as interest on the debt requires to be taken into account) as if I had been paid when possession of the farm was first given. Any thing that fails to secure this is less than a perfect standard. If I am better or worse off by

reason of the credit given and taken, I have derived an unjust advantage, or I have suffered an undeserved loss.

How much does this involve? Suppose the stipulated price of my farm to have been $10,000. It is not enough to say, when I receive the money five years later, "Had you been paid in cash, you would have received a thousand gold eagles. Here are a thousand gold eagles of the same weight and fineness as the eagles of five years ago. You are therefore in precisely the same position as if you had been paid at that time."

Had I been paid five years ago, the thousand eagles would have contained not only a certain quantity of fine gold, but also a certain amount of purchasing power; would have brought me the just equivalent, in enjoyment, of my farm. It is not enough to allege that the eagles are now in my hand, undiminished in weight and unimpaired in fineness. The further question must be answered before the eagles can be said to have answered the requirements of a standard satisfactorily: Have the eagles the power to place me where I should have been, with respect to the purchasable wealth of society, had I been paid five years ago?

It will at once appear that this is to demand a great deal of a standard of deferred payments; more, indeed, than can reasonably be expected of any class of articles known to us. Yet it is also evident that some articles will approach far nearer to this requirement than others. We have only to think of the conditions of the production of the chief

grains or the staple materials for textile fabrics, to see how grossly any one of these would be unfitted for the ordinary performance of this function. Wheat might serve as a medium of exchange in an industrial society where credits were few, but it would be an impossible money in a State where the bulk of all exchange transactions are upon credit. Through the capriciousness of the seasons a bushel of wheat may represent one year an amount of labor greater or less by ten, thirty or fifty per cent, than in the preceding or the succeeding year. Ordinary commercial transactions simply could not be carried on at all amid the uncertainty as to the value of payments to be made or received, which would be involved in the use of any article varying so greatly in cost of production within a brief time.

In addition to the other qualifications they possess for performing the office of money, the metals probably exceed in steadiness of value from year to year any other equally extensive class of substances. This is not due to the regularity of their production. On the contrary, it is probable that the product of the mines of the world varies more from year to year than the products of the fields. It is to the durableness of the metals that their exemption from extensive fluctuations in value within short periods is due.

"The corn which was brought to market last year," says Adam Smith, "will be all, or almost all, consumed before the end of this year; but some part of the iron which was brought from the mine two or three hundreds of years ago may be still in use; and perhaps some part of the gold which

was brought from it two or three thousand years ago."

But while the metals, and especially gold and silver, are thus in a high degree fitted to serve as a standard of deferred payments, within moderate terms of years, they are yet liable to slow and gradual variations of value, which may very sensibly affect parties to all long contracts and fixed charges.

The history of the production of the precious metals is a history of often intermittent and always highly spasmodic activity. Against such wide periodic variations agriculture is in a great degree exempt.

In the first place the metallic deposits lie concealed beneath the surface of the earth, often at a great depth; and there is thus room for chance to play an important part in their discovery. The merest accident may disclose the existence of vast bodies of ore which had remained unsuspected for ages. At Potosi it was, according to tradition, a hunter pulling up a bush which he had seized to steady himself, in climbing the side of the mountain, which led to the opening of that vast deposit. In the Hartz Mountains it was the pawing of a horse which brought up the first glittering particles which caused the opening of that prolific source of mineral wealth. In Saxony it is related that the signs of silver were first observed among the dirt on the wheels of a cart which had passed through the extensive forests whence large quantities of the precious metal have ever since been taken.

However much, or however little, of truth these

particular stories, all gravely related, may contain, they serve not unjustly to represent the fortuitousness of nearly all discoveries of this character. Seldom are they the results of geologic exploration or of intelligent observation. The discovery of gold in Australia, indeed, has been attributed to the recognition, by a Californian, of the likeness of the region to California ; but it has also been attributed to escaped convicts who had sought refuge in places where no honest avocation would, at that time, have carried them. However that may be, it was one of the strangest freaks of fortune that made the discovery of gold in that remote region follow so closely—by an interval of only three years—upon the California discovery.

In agriculture, on the other hand, the sources of production are all open to view. Important discoveries of arable land are not among the possibilities, now that the ocean has been searched and mapped.

Secondly. Mining is so difficult an art that the destruction of mining populations, or even the mere dispersion of them, constitutes an almost irreparable injury to production. Even the knowledge of mining methods and the very traditions of the industry may be lost, as during the Silver Famine of the middle ages.

The processes of agriculture, on the other hand, are so much more simple, and the numbers cultivating the soil so much more considerable, that a permanent cessation of production, through disturbances of population, due to civil war or invasion, is far less likely to take place.

Thirdly. The destruction of mining apparatus and machinery through war or domestic convulsion causes a far more serious and lasting injury to production than agriculture suffers from like causes. A single hour of riot at the mouth of a mine may work a mischief which will not be repaired for years—perhaps a mischief which is irreparable; but the fields which have witnessed the carnage of a Waterloo or a Gettysburg may bloom the next year with their richest harvest.

Fourthly. The waste of resources and the loss of productive capability which may be wrought by the passion for sudden wealth and by niggardliness in expenditure, great as they notoriously are in agriculture, are not to be compared with the effects of the like causes upon the production of the precious metals.

The exhaustion of the soil by injudicious and parsimonious working is indeed shown in the sterility of many of what were once the fairest regions of earth; but that sterility is not so hopeless, nor does the penalty of mismanagement and abuse of nature follow so quickly, as in the department of mining industry.

There is no pursuit in which so wide a difference is made in the large, the ultimate result, according as men work under the passionate impulse of the desire of immediate gain, or are directed by an intelligent sense of self-interest, extending far beyond the present into the future; and nowhere does greed, always and everywhere the enemy of true self-interest, obtain such complete mastery over the senses

and passions of men, as when gold and silver are in sight. Never do men so disregard the considerations of simple prudence, never so wantonly sacrifice the future to the present.

In part, this is due to the fact that the work of mining is generally carried on far from the seats of population, under conditions difficult and often dangerous, and hence by men more than usually reckless and under the domination of immediate appetite. In part, also, it is due to the mysterious attraction which these metals exert upon the faculties and sensibilities of men.

Lastly and chiefly, the very nature of metal deposits, the work of agencies long extinct, and the utterly unaccountable way in which such deposits occur, especially in the case of gold and silver, render it inevitable that periods of highly stimulated production should be followed by periods of comparative inactivity or complete lethargy, to the serious prejudice of money, in its function as the Standard of Deferred Payments.

Here, then, is the weak point of Metallic Money. In all cases of contracts extending over long terms, and of fixed charges upon land or productive industry, great injustice as between man and man, and lasting injury to production, are not unlikely to be wrought by the periodic fluctuations of the money supply. Not to speak of the enhancement many-fold of the value of money through the Silver Famine of the middle ages, or of the sudden and extensive decline which has been referred to as taking place between 1570 and 1640, it is estimated by Professor

Jevons that the value of gold fell forty-six per cent between 1789 and 1809, that from 1809 to 1849 it rose one hundred and forty-five per cent, while between 1849 and 1874 it fell again at least twenty per cent. Even if we allow much from the insufficiency and inaccuracy of the data used in such comparisons, there will remain an unquestionable variation of wide reach within each of the periods indicated. Not all of this could have been due to influences affecting the demand for gold, the occasions for its use.

While, therefore, the precious metals have a great advantage over the cereals as a standard for determining the claims of creditors, the obligations of debtors, in all cases of contracts running but a few years, there is no reason to believe that they furnish a better standard for the adjustment of long-term contracts. Indeed quite the reverse is probably true. Through considerable periods breadstuffs maintain their cost of production much more steadily than do the metals. No substance or class of substances can perform this function perfectly. Always there will be the possibility, the probability, the utmost certainty, that one of the two parties to all deferred payments will suffer from changes in the medium adopted, will pay more or less, will receive less or more, by reason of the imperfections of the standard. But the vast breadth of arable land of reasonably uniform quality; the simplicity of the processes of agriculture and the wide diffusion of the art of tillage; the comparative immunity of the soil amid ravages which greatly impair, perhaps permanently

cripple, manufacturing, and, in an even greater degree, mining industry; the limited applicability of the principle of the division of labor to agriculture, and the relative inefficiency of machinery in its operations—these causes combine to render bread-corn, in truth, what Francis Horner pronounced it to be, "the real and paramount standard of all values." John Locke, in his paper on the Value of Money, advanced the same idea. "Wheat, in this part of the world, and that grain which is the constant general food of any other country, is the fittest measure to judge of the altered value of things in any long tract of time."

Yet, in spite of the considerations which seem to favor the adoption of breadstuffs as the standard, in the case of long-term contracts, this is but seldom done, nor does any tendency appear to an increased resort to this mode of measuring indebtedness. The manifest convenience of having that for the standard of deferred payments which is also the medium of current exchanges, the indolence and want of initiative which lead to the acceptance of what is nearest at hand and most familiar, a superstitious veneration for the precious metals together with great ignorance as to the conditions and history of their production, have combined to withstand the important reasons which favor the adoption of corn rents, corn interest, and corn annuities, in the case of long leases, long loans, and fixed charges upon land.

But, it is said, something even better might be brought into use. Various schemes have been proposed, some by writers of the greatest respectability,

for obviating, if not all, by far the greater part, of the inconveniences and the injustice which result from the variations of any single substance or single class of substances, when taken as the standard for deferred payments. For some of these schemes it has been claimed, and not without reason, that they would measure the claims of the creditor, the obligations of the debtor, over as long a period of time as the legislator feels called to make provision for, with a degree of accuracy which would practically leave nothing to be desired.

The schemes particularly referred to are those of Messrs. Lowe and Scrope in England, and of Count Soden and Professor Roscher in Germany, which all propose, under differing forms and conditions, a Tabular Standard, or Multiple Tender, in which the value-variations of a considerable number of articles of general consumption and of prime importance in the economy of daily life—corn, beef, potatoes, wool, cotton, tea, coffee, sugar, timber, iron, coal, etc.—shall be trusted to compensate each other, with the result of a high degree of stability in the whole body so composed. The articles selected should be taken in definite quantities, and all of standard quality. An arbitrary name might be given to a Unit of this measure, which would embrace a certain number of pounds, bushels, or yards of each one of the articles on the list. Any person selling a house or a farm might then fix the price at so many of these Units, corresponding to the present value of a bill of goods of such commodities, in such quantities.

The seller would thus be assured of being placed at the end of the term of credit in substantially the same position as if he had been paid at the time of the purchase. If one, three, or five of the articles taken should be found to have risen in value in the interval, others, doubtless as many, would be found to have fallen, and in the aggregate to an equal extent. Exceptional causes, over so large a field of operations, would practically offset each other, with a result of complete justice, as between the two parties to the contract.

But as it might be inconvenient to the non-commercial creditor to receive, ten years hence, a number of cart-loads of goods of one or two score of kinds, representing the animal, the vegetable, and the mineral kingdom, and to be obliged to dispose of these for himself, it should be stipulated that the debt should be paid in current money—gold, silver, or paper—in such amount as would at then current prices purchase the bill of goods which had been taken as the measure of the claim of the creditor, of the obligation of the debtor.

Of course, for the satisfactory carrying out of such a scheme, the sanction of government would be required. Commissioners would have to be appointed who should be empowered to make periodical publication, quarterly or monthly, of the prices of the several articles taken for this purpose, according to the rates prevailing in the principal or representative markets of the country. Such publication would embrace a computation of the value in money of the Unit of the multiple-tender—that is, the com-

missioners would announce that so many pounds, bushels, or yards of the commodities on the list were worth at date so many ounces of silver or gold, or so many dollars of paper money. All payments falling due within the quarter, or the month succeeding, would be made in money, according to the terms of the announcement.

To illustrate the operation of this scheme, let us suppose that in 1869 I sold my house or farm on a credit of ten years. The price of the property, as reached in the negotiation between the buyer and myself, was $6000. But instead of his giving me his note for $6000, we looked together at the official published list of prices for the multiple-tender, and found that the value of the Unit, embracing so much of each of so many articles, was at the time $12. The note was thereupon given for 500 units of the multiple tender.

On the note coming due the present year, my debtor and myself would refer to the last list published, dated just ten years after the one which formed the basis of the contract; and we should probably find that the value of the unit, in current money, was now higher or lower, say $11 or $13. That is, the same amount of the same articles could be purchased for one or the other of these sums, which could have been purchased for $12 when the note was given.

The announcement is official, conclusive. No controversy is possible between us. The computations required are no more elaborate than those involved in casting up the semi-annual interest. I re-

ceive $5500 or $6500 in money, according as its value now is, and the transaction is closed. The effect of the introduction of the tabular standard has been to put me precisely where I should have been had I received payment at the time of purchase. I get no more, no less, by changes in the value of any article. I am no worse off by reason of having given credit. On the other hand, the purchaser has had all the legitimate advantage of receiving credit without deriving any unjust advantage thereby, or being subjected to any penalty therefor, beyond the payment of the stipulated interest. He has no chance to get the house or the farm at last by paying me what is worth only half, or two thirds, what it was worth ten years ago; and he is likewise relieved from all danger of being required to pay me a third or a half more than he had reason to expect, through a change in the purchasing power of money which he could neither control nor foresee.

Such is the scheme of a Tabular Standard, or Multiple Tender, which has been brought afresh to public notice by Professor Stanley Jevons in his excellent work, "Money and the Mechanism of Exchange." It is evident that the thing is perfectly practicable. If it is worth while to do it, there can not be even a question as to its success. The cost of the necessary machinery would not be great. Three commissioners and half a dozen clerks for the whole United States could do all that would be required in the ascertainment and publication of the prices of the articles taken as the standard. Parties making contracts could express the obligation in

terms of the Multiple Tender, or draw their notes for money, as now. The computations required would be so slight as to be absolutely inappreciable. It will be seen that no change of monetary legislation is necessary; that no new legal tender would be established. Government would simply provide the standard, and leave it to the pleasure of contracting parties to use it or not. No new judicial machinery is required. The courts would enforce contracts on the same principles of law or equity as at present.

So far as I am able to judge, the scheme has not a single weak point. It is merely a question whether it is worth while to take any trouble whatever to accomplish the object proposed. The expense of the system to the nation would not be worth a moment's thought, if indeed the end in view were desirable. Let us then inquire more specifically what classes would be especially benefited by such a system of ascertaining the claims of creditors and the obligations of debtors; and at what point in the commercial and industrial economy the advantages of the use of such a Multiple Tender would be neutralized by the obstruction it would occasion.

Professor Jevons seems to think that the Tabular Standard might be applicable, in the course of ordinary commercial transactions, to the payment of debts of more than three months' standing. In this, however, I can not concur. In the first place, the advantages anticipated for the scheme are reduced to a minimum when it is applied to short credits. The precious metals have a high degree of steadi-

ness in value from season to season, and from year to year, far exceeding in this respect any other considerable class of substances. It is true that such a tabular standard would be even less subject to variation than the precious metals; but I apprehend the gain would not be sufficient to induce any merchant or manufacturer to open a set of books upon this plan.

While the inducement to undertake the proposed mode of ascertaining the due weight of obligations is thus greatly reduced in its application to credits for short terms, the objections to its use are greatly increased. It is essential to the conduct of business that the merchant or manufacturer shall be able at any time to tell just where he stands; to strike a balance of assets and liabilities. But this would be, in the case assumed, impossible. A part of his liabilities and of his assets would be expressed in terms of money. Another part would be in units of the Multiple Tender. The value of a unit of this, at the maturity of any note to be paid or to be collected, could, by the very description of the system, never be known in advance. A note given for 400 units, payable in September, might not balance, probably would not exactly balance, a note for 400 units, receivable in August or October. It would thus be impossible for the merchant or manufacturer at any time to cast up rapidly and decisively the results of a venture, or ascertain his own exact standing. Every note given or taken in the course of business under this system would have to be liquidated. Its present value in money would never be known.

Commerce will not tolerate any such obstructions, and the scheme, so far as this application is concerned, may be dismissed at once. Commerce will do the best it can with the use of money, and of credit expressed in terms of money. Nothing is more characteristic of the commercial spirit than the disposition to take the evil with the good, roughly to strike the average of gain and loss, promptly to charge off bad debts, always looking on towards the future, never regretting the past. This spirit leads, doubtless, into many errors, but it is the very life of commerce.

For what classes of contracts, then, might the Multiple Tender be advantageously employed?

Certainly the need of such a standard of deferred payments is most imperative in the case of those who are not in the way of repairing any losses they may suffer through fluctuations in the value of money; upon whom the full effects of depreciation fall directly and remain without relief. And while the advantages of such safeguards upon the value of debts here rise to their maximum, the obstruction sinks here to a minimum. In permanent investments of property not the least inconvenience would be encountered by the scheme of a Multiple Tender, which might be extended to the cases of all who have definitively retired from active life, carrying away with them all they will ever have to support old age and provide for their children; to the cases of trustees and guardians, under a solemn responsibility in the care of estates, where loss is more to be dreaded than gain to be desired; to the cases of in-

stitutions whose funds are sequestered from the stock of active capital for pious and charitable uses. The funds of savings banks might be put under the same safeguard, and Government loans might also be issued in terms of the multiple tender.

CHAPTER IV.

METALLIC INFLATION; OR, THE EFFECTS OF AN INCREASE OF METALLIC MONEY.

WE have seen the causes which operate to give the production of the precious metals a highly spasmodic and intermittent character, and thus impair their usefulness as the standard of deferred payments.

It is now our duty to inquire what are the effects upon trade, industry, and society, of a failure more or less extensive in this function of money, whether that failure proceed from excess or from deficiency of metallic supply.

And first, of an excess in the supply of the precious metals. What is Metallic Inflation? Metallic inflation is not synonymous with an increase in the volume of the precious metals. It occurs only when the increase in supply outruns demand, and thus a fall takes place in the value of money, by which the creditor in all deferred payments is made to accept, in satisfaction for the services or the products with which he has parted, less purchasing power than he would have received had payment been made at the time of delivery.

Let us first take the case of a gradual increase of the money-supply, steadily exceeding, but at no

rapid rate, the increase in the demand for money for all the uses of exchange.

While many economists insist upon regarding all variation of the standard taken for deferred payments as a subject of regret, not a few writers of high reputation have strenuously maintained that a slowly progressive depreciation of money is a result eminently to be desired. They admit that the effect must be to subject one party to every contract to an undeserved loss, and to confer upon the other party an undeserved advantage; but they contend that this is well for society, if it be the result of purely natural causes so that the sense of injustice, as between man and man, is not awakened, and no retributive agencies are set at work. They confess that not only individuals but classes are injured, but they claim that the community is greatly benefited by the steady reduction of the purchasing power of money.

Mr. J. R. McCulloch declares that, "while, like a fall of rain after a long course of dry weather, it may be prejudicial to certain classes, it is beneficial to an incomparably greater number, including all who are actively engaged in industrial pursuits, and is, speaking generally, of great public or national advantage."

M. Chevalier says: "Such a change will benefit those who live by current labor; it will injure those who live upon the fruits of past labor, whether their fathers' or their own. In this it will work in the same direction with most of the developments which are brought about by that great law of civilization to which we give the noble name of progress."

And David Hume has written: "In every kingdom into which money begins to flow in greater abundance than formerly, everything takes on a new face; labor and industry gain life; the merchant becomes more enterprising, the manufacturer more diligent and skilful; and even the farmer follows his plough with greater alacrity and attention."

Claims like these, so large and bold, from writers of such eminence, deserve careful analysis. Let us therefore inquire whence any advantage to society as a whole can accrue through an increase of the money supply in excess of the demand.

In the first place, it is a popular notion that an increase of the precious metals in circulation lowers the rate of interest. If the purchasing power of money be reduced, it is said, the power of money to command a remuneration for its temporary use must be likewise reduced.

What is interest? It is the compensation paid for the use, not of money, but of capital. Money is only one of many forms of capital; and in loans is usually only the agent of effecting a transfer of other forms of capital than itself. If I borrow money, the chances are that I at once, or shortly afterwards, purchase with it articles suitable for my business or my personal necessities. These were what I wanted. These were what I really borrowed. These are what, in any philosophical view of the subject, I pay interest on; not upon the money. The money was but the means to this end.

But money is not always, nor in the modern commercial organization is it usually, even so much as

the agent in the transfer of capital from the lender to the borrower.

The country merchant goes to the city and makes his purchases for the season. He buys $500 worth of dry goods, $1000 worth of groceries, $200 worth of hardware, and at each store gives his note for the amount of the purchase for sixty days, or three months, "with interest." What is the interest to be paid upon? Money? He has had no money. He has had nothing but goods—capital. The young Western farmer buys stock, and gives his note for $3000, payable in five years, secured upon his farm with interest meanwhile semi-annually at four per cent. For what is the eight per cent interest compensation? For the use of money? No money has been used in the transaction. The interest is paid for the use of capital. The rate of interest paid is determined by the relation of the demand to the supply of capital, the demand for capital being determined by its capability in that region to assist labor in the production of wealth, the supply consisting of the wealth produced in the community in excess of what has been consumed, together with so much as the high rate of interest prevailing has induced Eastern owners to transfer to that locality for profitable employment.

Hence we see the futility of the notion that the rate of interest can be permanently lowered by merely augmenting the supply of money. That rate depends upon the supply of capital in all its forms suited to productive uses, compared with the opportunities existing to use capital productively.

The West clamors for "more money." What it wants is more capital. The mistake is an old one. Interest was high in New England two centuries ago from precisely the same cause which now makes it high at the West. The people of New England then suffered from the same misconception, and cried out for more money. They had brought out from their old homes very little of wealth, even in its most useful forms, and there was great occasion to use wealth in making themselves comfortable in a new land, and in developing the resources of the country. They had houses and shops and churches and schools to build all at once; roads and bridges to make; land to clear, fence, and drain—all requiring the use of live stock, tools, clothes, and provisions. But provisions, clothes, tools, and live stock were scarce. Consequently the use of them cost much, *i.e.*, interest was high.

Had the people been less enterprising and ambitious, there would have been capital enough for all their uses. Philip and Massasoit never complained of a high rate of interest.

Had the natural advantages of the country been less abundant, there would have been capital enough to supply all the tools and materials which labor could profitably have employed, and interest again would have been low. And as in the course of time these communities grew older, and accumulated from year to year and generation to generation larger stores of materials and tools; as they got their bridges and roads and churches and dwellings constructed once for all, capital became abundant in

comparison with the opportunities for its productive employment, and interest fell point by point, to correspond with the altered conditions.

Secondly. It has been frequently alleged that a metallic inflation diminishes the burden of taxation. This seems to have been a favorite notion of the historian Alison.

It is difficult to see how the cause adduced can have any considerable effect in this direction, so far as taxation for the ordinary occasions of government is concerned, which is what Sir Archibald Alison appears to have had in view. Taxes are the means of furnishing the revenue needed to meet expenditures on account of a great variety of services and commodities. It is true that the price of services required by the State—that is, the wages or salaries of officials and laborers—may advance less rapidly than the purchasing power of money declines; and thus, in the language of Mr. Huskisson, "a saving accrue to the State from paying the wages of labor, talent, industry and labor, in a depreciated currency;" but, on the other hand, the prices of those commodities which the State especially requires will be likely to make more than a proportional advance. If, then, the volume of money is increased, and its purchasing power diminished, the expenditures of government may be expected to increase at least correspondingly. But while the claim that metallic inflation reduces the pressure of taxation thus seems to have little or no foundation, so far as the current expenditures of government are involved, yet so far as taxation results from the

necessity of paying the interest or principal of public debts, it will of course be reduced in consequence of a metallic inflation.

Thirdly. We now come to a claim which has been put forward in favor of metallic inflation with not a little of economical authority. The case was stated very strikingly by Mr. Hume in the essay from which I have already quoted. If we trace the new money in its progress through the whole commonwealth, "we shall," said that profound thinker and subtile analyst, "find that it must first quicken the diligence of every individual before it increases the price of labor. . . .

"Though the high price of commodities be a necessary consequence of the increase of gold and silver, yet it follows not immediately upon that increase, but some time is required before the money circulates through the whole State and makes its effect to be felt on all ranks of people. At first no alteration is perceived; by degrees the price rises, first of one commodity and then another, till the whole at last reaches a just proportion with the new quantity of specie which is in the kingdom. In my opinion it is only in this interval or intermediate situation between the acquisition of money and rise of prices that the increasing quantity of gold and silver is favorable to industry. When any quantity of money is imported into a nation, it is not at first dispersed into many hands, but is confined to the coffers of a few persons, who immediately seek to employ it to advantage."

The cause which we are considering does indeed

Hume

operate in the very way indicated by the philosophical historian quoted; and it is a remarkable proof of Hume's penetrating insight that at so early a date in the history of economic investigation he should have so justly apprehended the influence of an increased volume of money upon trade and production. Its first effect is to stimulate enterprise. The persons into whose hands the new supplies come seek to employ them to advantage, either in extensions of existing branches of industry or in opening new fields of production. "There is at all times," says Mr. Newmarch, "a profusion of enterprises to be undertaken, of experiments to be tried, of schemes to be worked out, of improvements to be made, of ingenious men to be set up with capital, of trades already profitable to be made more so by vast extensions."

For such the new supplies of money are the means of obtaining the requisite capital much more readily and conveniently than it could otherwise be drawn from existing sources. They constitute a disposable fund always ready for whatever promises best.

And the new supplies not only furnish the means for new enterprises and extensions of traditional avocations, but they give also the courage and spirit of adventure which, in moderation and subject to the rules of prudence and the teachings of experience, form a very important element in the industrial life of a people. Production and trade tend, as John Locke has remarked, to wear for themselves channels, from which only a great overflow will divert them. The capitalist and the employer become

possessed in a wonderful degree of all the secrets of the familiar avocation; they acquire the greatest facility in its processes; they discover new means of making labor and capital more effective in doing the old work; they detect every leak and source of waste. But all the while they are becoming rather less than more alert and open-eyed towards what is without their daily walk; and there is always the possibility, or even the probability, that, while every industrial agent is thus bent on perfecting that portion of the industrial system with which he is personally connected, opportunities for remunerative enterprises offered by changes in the direction of the popular consumption, by altered conditions of production, or by the discovery of new resources in nature, may be overlooked and neglected. A crust of custom tends to form over industry, as over every thing else in human life, which prevents or restricts free, natural expansion. Nothing at times is more stupid and stolid than capital. It needs to be waked up, incited, stimulated to alertness, activity, and some degree of aggressiveness. Wealth does not fall into the laps of men. Risks have to be taken, unknown fields to be explored, costly experiments to be tried, obstacles to be resolutely assailed for the sake of the good that is seen or suspected to be behind.

It is clear that an increase of the money supply may afford just the incentive to enterprise and even to speculation, in the best sense of that term, *i.e.*, the anticipation of the future, which may be sufficient to break through the crust of custom, to cause men to

undertake these costly experiments, to encounter these initial risks, and search out new channels for productive energy. And still bearing in mind our assumption that the new supplies are received evenly and not too rapidly, such, in greater or less degree, according to the temperament and the industrial genius of each people concerned, will almost certainly be the effect produced.

But the influence of a progressive increase of the volume of money does not stop here. As it passes into circulation it raises prices, but not equally and at once in all directions. Some time is required before it circulates through the whole State and makes its effect to be felt on all ranks of people. "At first no alteration is perceived; by degrees the price rises, first of one commodity and then another, till the whole at last reaches a just proportion with the new quantity of specie which is in the kingdom."

This view seems both rational and thoroughly practical. The Ricardian political economist declares that he sees no advantage in an increase of the money supply above its former level. If the amount is increased, its purchasing power is lowered correspondingly, prices rise in exact proportion, and every thing is as it was before, except that more labor has been expended in mining, and the medium of exchange, by becoming cheaper, has become more cumbrous.

But this rise of prices does not occur instantaneously. It proceeds not only from one class of commodities to another, as Hume observed, but also, as Professor Cairnes has shown in his Essays on

the Gold Question, from country to country, with appreciable intervals, which permit of important economical efforts being produced meanwhile. Those effects are various, but that with which we are here particularly concerned is the influence upon profits.

In the modern organization of industry the profits of the man of business furnish the sole motive to production. Production is not carried on because the laborer wishes it. The laborer has nothing to say about it. If he is employed, he works and earns wages; if employment fails him, he is impotent to make a place for himself; he holds on painfully, awaiting better times, and eating up his little substance, selling the clothes and the furniture out of his house a piece at a time. It would be difficult to imagine the laborer more passive and helpless, more dependent upon the action of others, than he is in the existing organization of industry. In the long and painful prostration from which the country is just now, as we hope, recovering, what have the laborers done, what could they have done, to secure employment for themselves?

Quite as little has the possessor of capital to say as to whether production shall proceed or not. Men are not employers simply because they are capitalists, or to the extent only to which they are capitalists. In a primitive condition, indeed, when the forms of production are few and simple, when the products are plain necessaries of life, or articles in universal request; when the materials of manufacture are obtained near at hand, and the producer

and consumer are either the same person or are found in close proximity—under conditions like these the possession of capital is the one sufficient qualification for the employment of labor; and, on the other hand, a stock of food and a store of tools and materials are all that labor requires to enable it to institute production.

But when, in the progress of society, the forms of production become numerous and complicated, when many persons of every degree of skill or strength are to be united in labor, when many of the materials of manufacture have to be brought from distant countries, and the products are, in turn, to be distributed by the agencies of trade over wide regions, the consumers constituting a vast and vague body, unknown to the producer and subject to incessant change, under conditions like these, a reason exists for an employer, a man of business, a captain of industry, which is wholly in addition to that which appears in an earlier state.

The mere possession of capital no longer constitutes the single qualification for the employment and direction of labor. The modern man of business must furnish, besides this, technical skill, commercial knowledge, and administrative capacity; he must assume large and trying responsibilities, and be incessantly on the watch against contingencies of loss and disaster.

He who can do these things will find capital for his purposes, or rather capital will find him, for it will seek him with painful eagerness, since it can do no more for itself, under the conditions described,

than can labor. The capitalist who, without these higher qualifications, undertakes to conduct industrial operations, will do so at the risk, the almost certainty, of partial or total loss. I asked, what have the laborers of this country done during the five weary years of industrial prostration to secure their own employment? and we saw that they have done nothing, because there was literally nothing which they could do but await the returning power and disposition of the employing class to renew their activity.

Now I ask, what have the capitalists of this country done, as capitalists, in the same period, to initiate production? What could they have done? The answer is the same; absolutely nothing beyond awaiting, with such patience as they could command, the revival of productive enterprise on the part of the employing class. Have the capitalists, finding their money left on their hands, or loanable only at very low rates of interest, gone into business for themselves, in order that it should be more profitably employed? As little as the laborers have resorted to co-operation in order to secure themselves an opportunity to labor. All through this weary period the attitude of both laborers and capitalists has given the strongest testimony that the employing class are completely the masters of the industrial situation. To them capital and labor are obliged alike to resort for the opportunity to perform their several functions; and whenever this class, in their view of their own interests, refuse that

opportunity, capital and labor remain unemployed, incapable of the slightest initiative in production.

Hence it is, we say, what can not be too strongly impressed upon the student of political economy, that the profits of the man of business constitute the sole motive to the production of wealth.

It does not follow from this that profits can not be too high for the interests of all classes. Excessive profits may induce indifference to humdrum economies, may excite to extravagance in personal expenditure and recklessness in planning and conducting industrial and commercial ventures. But it clearly does follow from the fact that the sole initiative in industry resides in the employing class, that it is exceedingly important that profits should be kept up to the point to encourage the largest production which can be maintained without repletion.

The influence of a gradual metallic inflation upon profits is very direct and simple. The manufacturer, let us say, makes his bargains for material and labor, for the production of a certain quantity of goods. The prices which he pays, or agrees to pay, are conditioned upon the amount of the circulating medium. Three months later, when the goods are ready to be put upon the market, prices are higher, by reason of the increased supply of money. Of this rise the manufacturer gets the advantage.

But it may be said, how is he any the better off when he has turned his goods into money at the higher prices, since the money which he receives, though greater in nominal amount, has no greater purchasing power, and he will not be able to replace

his stock of material and hire the same quantity of labor, except by paying the whole of the money he gets by the sale. To this objection it is a sufficient answer to say that the wages of labor seldom or never rise so fast as the price of commodities, and that the prices of raw materials seldom or never rise as the result of an increase of the money supply, except after and through the rise in the prices of the goods into whose production they enter. In this interval or intermediate situation, to repeat the phrase of Hume, the increasing quantity of money produces the effect which has been described.

If this analysis be correct, the natural operation of a metallic inflation benefits those who are carrying stocks of commodities, and are engaged in the production of goods from materials and labor purchased, or contracted for, at existing prices. This slight progressive rise in prices does not constitute the manufacturer's profit, but a premium in addition to the ordinary profit.

It is, of course, pertinent to say that this premium must be paid by some person, or class of persons, and that what the manufacturer gains some one else loses. What I have sought, through this long discussion of the office of the man of business in modern industrial society, to prepare the way for, is the proposition that the community can afford to pay this premium in addition to the ordinary average rate of profits, this prize, for the sake of securing the greatest activity and alertness of the employing class. It is easily conceivable that this premium might, through a rapid and violent increase

of the money supply, be carried to such a point as seriously to weaken the general body of consumers, and to harm rather than benefit the commercial and industrial classes by exciting a spirit of furious speculation, by making them discontented with slow gains, and inducing habits of personal extravagance in expenditure; but in moderation I can not doubt that it gives a fillip to the zeal of the employing class, and in the immediate present promotes production without necessarily inducing any reaction whatsoever.

But, fourthly, the chief advantage which it is claimed results from a metallic inflation comes through the reduction in the pressure of indebtedness and of fixed charges of all kinds, rents, pensions, annuities, payable in money. This is a matter of the most serious importance, and requires to be treated with carefulness and candor.

The body of indebtedness existing at any moment in any progressive community is very large, and tends continually to increase. The more difficult the conditions of production, the more pronounced becomes the necessity for the employing class, the men of business, and the greater, by consequence, the sum of capital which is used by those who do not own it.

In an early condition of society the idea of debt is very largely associated with personal extravagance or personal misfortune. The debtor is generally a spendthrift, or else a broken person, the object of blame or of compassion.

In a condition of society like the present the idea

of debt is wholly free from such associations of misfortune or extravagance. More and more production tends to be carried on by means of borrowed capital. The employing class becomes a comparatively small and highly select body of men, who control the destinies of capital quite as arbitrarily as they do the destinies of labor. That class becomes select, not by the choice of any constituency, whether of laborers or of capitalists, not by any rigid requirements upon entrance, whether of examinations into competency, or of initiation fees. All are in theory free to enter ; but the number of those who venture is restricted by the known severity of the conditions of business, while those who undertake the risks and responsibilities of production are continually sifted by pressures and panics.

From these conditions it results that but a small proportion of the capitalist class are personally engaged in business, while the employing class acquire the control for productive purposes of a vast body of wealth which they do not own.

The owners of capital who are not also employers of labor are, first, those who by age, sex, or infirmity, are disabled for active occupations ; men retired from business, women of all ages, children and young persons of both sexes, the crippled and incompetent, for whom provision has been made by others. In the order of nature these classes of persons own a large part of the wealth of the world.

Secondly. Those who from dignity and love of leisure, as is especially apt to be the case with men who have inherited wealth, are indisposed to in-

crease their store by active exertions, particularly where more or less of risk is involved, and choose to live upon the revenue derived from the investment of their means.

Thirdly. Those who, like lawyers, physicians, clergymen, engineers, and government officials, are engaged in occupations and professions which afford no opportunity for the employment of surplus earnings.

Fourthly. The laboring classes themselves, so far as they make savings out of their scanty earnings, since they are, from the very nature of their industrial position, unable to apply these personally to production.

Such are the principal constituents of the capitalist class, who are creditors under the modern industrial and commercial system. The debtors are, in the main, the conductors of business, the employers of labor. Out of the product of their several trades and enterprises they are bound to pay interest upon the sums loaned to them, and, in due time, to repay the principal. Those obligations are generally payable in money; and the claim for the virtue of a metallic inflation, which we are now considering, asserts that it is for the benefit of the community, as a whole, that the weight of those obligations should be progressively diminished. But why, asks Mr. Maclaren, in his History of the Currency, "Why should the power to make a fortune be cherished at the expense of a fortune when made?" Why should it be considered a matter of congratulation that the creditor should, by a change in the value of money,

receive less than he parted with? Why should we wish the standard to be something less than a perfect standard?

It is the fact that the actively producing class in modern industrial society are also the debtor class, which, in the view of those writers who find a metallic inflation to be beneficial, constitutes the justification for rejoicing at a progressive depreciation of money. It was just this which M. Chevalier had in mind when he declared that such a change works "in the same direction with most of the developments which are brought about by that great law of civilization to which we give the noble name of progress." Contemplating the creditor class as the representatives of the industry of the past, and the debtor class as representing the industrial interests of the present and the future, M. Chevalier deems it fortunate that the claims of the past upon the fruits of the present and the future should be diminished, not violently or rapidly, but through a slow and gradual movement, not by confiscation and repudiation, the work of man, carrying with it the sting of injustice, and bringing retribution after it, but by a purely natural process, in the discovery of new stores of the precious metals, or through improvements in the chemical and mechanical arts of mining. It is thus, he holds, the past should minister and be subordinated to the future. It is the way of nature; it is the path of progress. It is not desirable that the change should be made so rapidly as to impoverish the dependent and helpless of a single generation who have been left with provision believed to

be adequate to their wants. It is desirable that it should go forward fast enough to bring the necessity of active exertion upon the young of the next generation, as they find their inherited wealth gradually growing insufficient to maintain the state of their fathers.

It seems to me that there is much truth in this view. The greatest good of the greatest number clearly requires that production should go on with a strong and steady movement. The slow, gradual depreciation of money, bringing about a reduction in the weight of the burdens which rest upon active production, in the nature of interest, rents, annuities, and all fixed charges, appears to have a tendency to quicken and strengthen the productive movement of the community, and thus to make employment more steady, to raise wages, and induce general prosperity.

The great historical instance of metallic inflation is that of the period 1570–1640, already referred to, when, in consequence of the vast production of the South American mines, money in Europe sank to about one fifth of its former value. Such a change could not but profoundly affect the whole substance and structure of society. In a tract by William Stafford, published in 1581, entitled "A Brief Conceipte touching the Common Weale of this Realme of England," is given in the form of a dialogue, the complaints of representatives of several classes of people.

The Knight, speaking for his order, says:

"All of my sort—I mean all gentlemen—have great cause to complain, now that the prices of things are so risen that you may better live after your degree than we; for you may and do raise the prices of your wares, as the prices of victuals and other necessaries do rise. And so can not we so much, for though it be true that of such lands as come to hand either by purchase or by determination and ending of such terms of years that I or my ancestors had granted them in time past, I do receive a better fine than of old was used, or enhance the rent thereof, being forced thereto for the charge of my household that is so increased over that it was; yet, in all my lifetime, I look not that the third part of my land shall come to my disposition, that I may enhance the rent of the same, but it shall be in men's holding, either by leases or by copy granted before my time, and still continuing, and yet like to continue in the same state for the most part during my life and per case my sons'. . . .

"We are forced, therefore, to minish the third part of our household, or to raise the third part of our revenues; and, for that we can not so do of our own lands that is already in the hands of other men, many of us are enforced either to keep pieces of our own lands when they fall in our own possession, or to purchase some farm of other men's lands, and to store it with sheep or some other cattle, to help make up the decay of our revenues, and to maintain our old estate withal, and yet all is little enough."

This tract, it will be observed, was published when the great change in the value of silver had been but a short time in progress. Before the close of that period the gentleman was fortunate who had only to "minish the third part" of his household.

Of those who had possessed barely enough for the support of old age or helpless infancy, great numbers were impoverished and brought into dire distress. The traces of the deep disturbances of that

time long remained upon the face of English society.

But it was not alone upon the upper classes that misfortune fell. Serving men and domestics were discharged by reduced gentlemen faster than the existing industries or new enterprises could take them up, and were driven to vagabondage and mendicancy. Moreover, the wages of labor never, as we have seen, rise so soon as the prices of commodities. In an advance of prices so rapid and furious as that we are speaking of, wages fell far behind; and the laboring classes found themselves continually poorer, in spite of the larger amount of silver which was paid them weekly. Those heaviest loaded in the race—the men of large families, and such as had the misfortune to be sick or temporarily disabled—were compelled to resort to charity.

Meanwhile a new cause of distress arose. We have seen that not only do prices tend to rise faster than wages, but that prices themselves tend to rise irregularly, under an increasing money supply. Some articles feel the force of this upward impulse much more quickly and strongly than others, while, at the same time, owing to the conditions of their production, the supply can not be so readily increased. Thus, speaking generally, it requires more time to double the production of meat than of bread, of wool than of cotton, the former belonging to the animal, the latter to the vegetable kingdom, and subject to more speedy multiplication. A fact of this nature added immensely to the evils of England in the later part of the sixteenth and the earlier part of the seventeenth century. Woollen goods re-

ceived an undue share of the new demand, both in England and on the continent of Europe. The use of machinery in the manufacture allowed production to proceed rapidly, only limited by the capability of supplying the raw material. Hence arose a demand for the wool of England, which caused an extensive change in agriculture within the island. Everywhere, in spite of complaints and in spite of prohibitory laws, arable land was converted into sheep walks, greatly reducing the employment afforded by the soil, since sheep require but few laborers. The discharged ploughmen were ill-fitted to enter either the old or the new branches of manufacture, while the privileges of the guilds and corporations and the rights of the journeymen, excluding all who had not duly served an apprenticeship, offered a further obstacle to their earning a livelihood.

Such was the condition of things under which vagabondage and mendicancy rose to gigantic proportions, and in which originated the pauper system of England. Mr. Jacob and Prof. Cairnes are agreed in attributing the Poor Law of Elizabeth to the wholesale destruction of accumulated fortunes, and the rapid overmastering changes of productive enterprise which followed the flood of new metal from the Spanish-American mines.

So much for the effects of the new silver on the highest and the lowest classes, the class of accumulated wealth, and the class compelled to earn the day's subsistence by the day's toil. How of the

intermediate class—the men of business, the body of persons engaged in conducting the industry of the country? Here, we note, were supplied the two conditions which have been shown to conduce to the greatest activity of the employing class, viz.: The burden of all debts and fixed charges was continually diminishing through the progressive depreciation of the money in which interest or principal was to be paid; and the advancing prices of goods kept ahead of wages, and thus a profit was secured merely from the interval between buying and selling.

But all this would have been secured equally well through an increase in the money supply far less rapid. The new silver could add nothing to the labor power of the community. It could, at the best, only serve, in the ways indicated, to cause the existing labor power to be somewhat more actively employed, with more alertness on the part of the men of business, with a greater readiness to take advantage of new opportunities opening for productive enterprise. But this fillip to the zeal of the employing class would, we may suppose, have been given with the maximum of good and the minimum of evil effects, by a slowly progressive depreciation of money. Productive zeal and energy are not always increased proportionally to the gains of business. In no other department of human effort is the line between a just self-confidence, a prompt and somewhat aggressive disposition to take advantage of all opportunities offered, on the one hand, and an overweening presumption and a mental blindness to the long, the large, view of self-interest, on the other, so

quickly overstepped as in the pursuit of wealth. The desire of well-being passes with fatal facility into the greed of gain, especially under the illusions which money has the power to create within the mind.

Beyond the mere fillip to enterprise, the stimulus to the zeal of the employing class, which shall secure the most careful and energetic direction of the labor power of the community, the whole further effect of an increase in the money supply must be to transfer wealth from one person or class of persons to another.

There can be little question that evils of a wide extent of influence were caused by the unprecedentedly rapid depreciation of money in England, and, in a greater or less degree, in other countries of Europe. Yet, while it was to be preferred that the depreciation should be less considerable, and should be spread over a longer period of time, it was perhaps better in the state into which Europe had fallen that it should come as it did than not at all. The metallic inflation of the sixteenth and seventeenth centuries put an end to the long life-in-death of the middle ages. Perhaps it was the very sharpness of the shock which broke up the lethargy which had settled upon the industrial spirit and the productive powers of Europe. The increase of the money supply contributed greatly to the rise and growth of the maritime power of Great Britain, and, in the language of an economist so careful as Professor Cairnes, "it supplied and rendered possible the remarkable expansion of oriental trade which

forms the most striking commercial fact of the age that followed."

Among more strictly political results of this great movement can be traced, in clear lines, the hastening decay of the feudal power, the increasing dependence of the sovereign upon his people for the supplies which his hereditary domains no longer furnished in sufficiency, and the rising spirit of self-assertion on the part of the commercial and mechanical classes.

CHAPTER V.

METALLIC CONTRACTION; OR, THE EFFECTS OF A DECREASE OF METALLIC MONEY.

I CONFESS to a purpose, which may perhaps be charged with artifice, in treating so much at length the effects, social and economical, of expansion or contraction of the volume of money, before introducing the subject of paper money.

The latter being a work of man's devising, ethical are almost certain to overpower economical considerations, so soon as the question of paper money inflation or contraction is raised for discussion. The sense of wrong which is aroused by the debtor's paying his obligation in depreciated money, in the one case, or the creditor's exacting a value far in excess of that which was in contemplation of the parties to the bargain, in the other; sympathy with the individuals or classes suffering from changes in the standard; apprehension that the passion of repudiation may be aroused in the debtor class by the example of the payment of debts in cheapened money, these feelings have always interfered with the scientific discussion of the effects of the expansion or contraction of the standard of deferred payments. Writers have been too apt to describe the effects which such courses, according to the view

taken of their moral character, ought to produce, in place of ascertaining precisely what effects they do produce, and to exaggerate unmistakable tendencies, in order to exert a wholesome influence upon the public mind.

Especially with regard to the effects of contraction have economical writers been greatly influenced by the attitude in which they have come to regard themselves as preachers instead of teachers; as in some degree responsible for the conduct of affairs, rather than as simply bound to investigate economic phenomena fearlessly and impartially. Having satisfied themselves that there is great political danger from the instincts of repudiation and confiscation, they seem to feel it their public duty to divulge nothing that, either by being understood or by being misunderstood, could minister to those instincts. This is not the only department of political economy in which much has been written in the same spirit as if the chemist should refuse to disclose the secrets of poisonous agencies lest men should take advantage of them to perpetrate crimes.

In respect to all which, it is enough to say here that the sooner the political economist dismisses his concern as to the use men will make of his teachings, and gives himself up, without any ulterior purposes, without any side glances at the existing social and political situation, to investigate phenomena and discover truth, the better for all parties. The time has passed for dealing with the masses as children who are to be treated to truth in quantities and on occasions suited to their welfare or the interests

of society. The political economist only abandons his ground of vantage and forfeits the confidence of the community when he accepts any responsibility for the use that may be made of the truth he discovers and discloses.

Knowing, however, the prejudice which is likely to be aroused by any discussion of the effects of inflation or contraction as the result of political action, I have thought it best to limit our present inquiry, as well as that just closed, to the consideration of changes in the metallic circulation. It was not man who hid away so cunningly, so unaccountably, the stores of gold and silver in the bowels of the earth. The sting of injustice adds no poignancy to the losses occasioned by metallic inflation or metallic contraction; the sense of wrong is not aroused, however great the personal hardship sustained; political intention disappears entirely from the discussion; and while sympathy for those who suffer by changes of the standard can not wholly be suppressed, it will interfere far less with a scientific investigation of the total effect of such causes than is possible where human agency is seen to inflict the injury.

The great historical example of metallic contraction is afforded by the Silver Famine of the middle ages. The period of dearth of the precious metals known by this designation lasted almost unbroken for a thousand years, during which, it is computed by Mr. Jacob, the quantity of these metals within the bounds of the former Roman Empire fell to

one tenth of the stock which had existed at the beginning.

The causes which led to so general a suspension of mining industry for so long a time are not more worthy of attention than are those which had allowed and rendered possible the vast accumulation of treasure with which the Roman Empire began under Augustus.

There are certain of the monuments of antiquity to which the word incomprehensible is frequently applied. The mystery of the Pyramids is not found wholly or chiefly in their profound mathematical significance, in their recondite astronomical relations, or in the mechanical difficulties of their construction. The wonder of the Pyramids the rather is that they should be at all. The mystery of the Pyramids lies in the motives that led to their building. How incomprehensible they must ever remain to modern thought! Though the physical power of the race has been multiplied a hundred fold, we can not conceive the most powerful nation of to-day rearing the smallest of these structures.

Scarcely less explicable by modern ideas than the Pyramids is the mass of gold and silver in existence in the third and fourth centuries before the Christian Era. How came it, that when trade was in its infancy and most of the mechanical arts were unknown except to two or three advanced peoples, when all the vessels which sailed the waters of the Mediterranean could have been stowed away bodily in the shipping that now leaves Marseilles in a single week; how came it that more gold and silver were

in the hands of men than all Europe possessed at the beginning of the eighteenth century after Christ?

The explanation of this remarkable fact is found in the essentially non-economical character of the production and use of the precious metals in early times. Had the mines been worked by free laborers for their own gain, and had the product, or the principal part of it, gone into circulation as money, prices would soon have so risen—that is, the purchasing power of a given quantity of gold or silver would have so fallen—that laborers would have been able to earn a day's subsistence more easily at any other occupation than in mining, and hence the extraction of the precious metals would have ceased or been carried on only at a rate to keep the stock good.

But the mines were not worked by free laborers for their own gain. That difficult and dangerous labor, accompanied in those days by horrors of which modern communities can have but a faint conception, was generally performed by convicts, captives, slaves, and serfs, for the benefit of the prince, who was by prerogative the sole owner of the mine.

The labor of the convict was essentially non-economical. He had, in any case, to be confined at the public charge for the protection of society or his own punishment; hence the produce of his labor bore no necessary relation to the cost of his maintenance. The labor of captives taken in war stood in a similar relation. Their employment was chiefly non-economical, having reference neither to repay-

ing the cost of rearing the present body of such laborers, nor to providing a future supply.

The labor of hereditary slaves or serfs was in a degree economical—that is, the prince, if he would keep up their service, must provide sufficient subsistence to keep alive the existing body of laborers, and to maintain the families out of which that body should be replenished. But this servile labor was non-economical in the sense that the prince was not compelled to maintain the laborers in any such degree of comfort as would cause them to prefer this occupation to any other that might be offered.

The production of the precious metals was non-economical in still another and more important sense. The gold and silver extracted did not pass into circulation. They remained the peculiar possession of the prince, or were devoted to sacerdotal uses. They were esteemed for themselves, and not, as in these days, for what they would bring; they were regarded not as a means, but as an end; they remained treasure, they did not become money.

The passion for accumulating stores of the precious metals, wholly without respect to any commercial use, seems, in these early ages, to have been without limit, while the only limit set to the exertions for obtaining them was found in the exhaustion of the working populations under the furious waste of life in the mines.

The spoil which Alexander took at Persepolis alone is stated by Diodorus at £27,600,000 sterling. There is no reason to suppose that had this mass been

doubled or quadrupled by the exactions of the Empire, any economical impulse to its diffusion would have been experienced. The vaster the store the better satisfied the monarch. Gold and silver were not extracted from the earth to circulate through vulgar hands, but to become regal or sacerdotal treasure.

Hence the territorial distribution of the precious metals, which we have described as taking place in modern days through the agency of price—from which it results that each country receives a share of the total stock of the world, corresponding to the wants of its own trade—did not in the early ages take place at all, or was effected very tardily. Gold and silver were distributed not by trade, but by war. It was the conqueror's hand that stripped them from temples and palaces. If they were taken from the store of the monarch, it was not to freight the caravans of commerce, but to fill the chariots and lade the sumpter horses of a victorious army.

As I conceive it, we can only explain the vast accumulation of treasure in Egypt, Persia, or Judea, by reference to the political system of the age. The production of the precious metals was, in the main, especially at the East, non-economical: without regard, that is, to the cost of production. It was because kings were completely masters of the labor, and regardless of the lives of their subjects, that such quantities of gold and silver could be extracted from the soil by the rude implements of that age.

The treasures of Susa and Persepolis could no more have been accumulated under the operation of

commercial demand than the Pyramids have been built by free labor.

With the stores of gold and silver swollen by the operation of the forces which have been indicated, the Roman conquests produced a twofold effect of the highest importance to industry, trade, and society. They put the metal, which had been for ages accumulating as treasure, into circulation as money, and at the same time they inflicted a severe blow upon mining industry, rendering it incapable thereafter of keeping up the supply.

It was not according to the political ideas which prevailed at Rome to keep the vast stores of the precious metals inactive. The gold and silver brought to Italy by successive conquests were made the means of advancing the fortunes of ambitious leaders through donatives of money or distributions of grain, of equipping expeditions for victories in new fields, or of winning popular favor by dispensing with taxation.

But while Roman ambition thus gave a merry circulation to the hoards of Persia and Judea, Roman administration was incapable of keeping good the supply of money.

In the first place, the Italians were unskilled in mining. They knew less probably of the conditions of that art than the people of any other geographical division of the empire. Gold and silver were not produced at all in Italy, and the other mineral resources were illy developed. The Roman system of centralized administration was poorly adapted to the economical working of mines. Unskilful-

ness, indifference, wastefulness, and outright peculation made a speedy end to the profits of working even the most abundant deposits. Recognizing the unsuitableness of their administrative machinery to the uses to which it had been applied, the Romans next extensively adopted the system of "farming" the mines, with the most disastrous results both to the mines as properties and to the laboring populations pertaining to them.

"The farmers," says Mr. Jacob, "took out only the best ores, and neglected those of inferior quality, leaving them in the pits, where they soon became buried in the rubbish with which they were surrounded. The object being to enrich themselves during the terms for which they held the mines, they naturally neglected the interests of future workers, and suffered them to go to ruin. Whilst exhausting the mines of the richest ores, they only cut the passages and propped the roofs in so slight a manner that, if they lasted during the current leases, they would all require to be reconstructed in a short period after, which, when the best ores had been extracted, would be at an expense that could not be replaced by any product of the inferior ores that had been left behind. The various contrivances for keeping out the water from the mines, and the machines and the implements for extracting what could not be kept out, were all contrived to answer temporary purposes."

Again, the very state of universal peace which the completion of the Roman conquests brought to the world, while in general it favored industry and

trade, destroyed one of the principal sources from which the labor supply of the mines had been obtained. A thousand contending tribes were merged in the vast empire which was bounded by the ocean, the Rhine, the Danube, the Euphrates, and the Desert of Africa. War, as a means of obtaining slaves, for a time ceased from the earth.

That long enforced peace was at last rudely broken by the series of Teutonic invasions which resulted in the downfall of the Roman power; but the new wars brought no laborers to the mines of Europe. The lands earliest invaded were those on whose produce the world then chiefly depended for a supply of the precious metals. The *Metallis Adscripti* of Thrace and Spain became the personal slaves of the conquerors, or swelled the ranks of their armies. The invaders knew little of any mechanical art; nothing of working mines. The mining system received its death blow, the mining populations were scattered, the mining machinery was destroyed by barbarian rage, or perished speedily from neglect, and soon even the traditions of the art were lost. For hundreds of years no record remains of any production of gold or silver in some of the richest countries of Europe.

Such, rudely traced and hurriedly grouped, were the causes of the silver famine of the middle ages. Slowly the vast treasure of the time of Augustus wasted away, from the effects of accidental loss or natural wear in use. Steadily the purchasing power of the precious metals rose. First gold came to be too costly for the usual purposes of trade,

and returned again to be treasure in the cabinets of princes or the caskets of bankers. Later, silver itself grew too dear for the daily purchases of a family, even the wealthiest, and copper or iron took its place as the money of ordinary life.

"The fall of the Roman Empire," says Sir Arch. Alison, "so long ascribed, in ignorance, to slavery, heathenism, and moral corruption, was in reality brought about by a decline in the gold and silver mines of Spain and Greece, from which the precious metals for the circulation of the world were drawn, at the very time when the victories of the legions and the wisdom of the Antonines had given peace and security, and with it increase in numbers and riches, to the Roman Empire."

Doubtless this claim is far too large. Causes distinctly political and social had to do with the downfall of that mighty fabric of military enterprise, legislative wisdom, and administrative skill; but it seems to me that there can not be an intelligent doubt that the steady rise in the value of money, due to its increasing scarcity, contributed greatly to the impoverishment of the people, the decay of commercial enterprise and the abandonment of agricultural lands, which sapped the foundations of the Roman Empire.

Of the revenue of the State, the greater part was obtained in money, and of this the greater part, it is probable by far the greater part, was derived from charges which did not vary with the amount of production, with the volume of business done, or with the profits realized, but were fixed for shorter or

longer periods of time, and sometimes in perpetuity. We know that the collection of taxes involved such odium that the decurionate was made compulsory, that an attempt to evade this duty was declared sacrilege or impiety, that, in spite of penalties, men abandoned their homes and fled to avoid the service. We know, by evidence on which no doubt can be thrown, that it was the severity of taxation which threw out of cultivation much of the finest land of the empire, and even of Italy; and we know also that this was not effected so much by new impositions as by the increasing weight of familiar and traditional taxes. We know, moreover, that the burden of existing imposts was so fully recognized as intolerable that it became a fashion among the better emperors to remit taxes in favor of communities or classes of persons, especially meritorious or especially distressed. These attempts at readjustment, however, were made tardily by the best emperors, and necessarily not without favoritism and ill-advice, throughout a dominion so vast, as to the proper subjects of remission or exemption. Often the indulgence came too late; industry had received its death blow, and the power which could kill found itself unable to make alive again. The more avaricious and reckless emperors, and those who had raised themselves by corruption, and had to maintain their place by donatives and distribution of grain, thought not of exemptions or remissions. They drained every source of receipt to gratify their ambitions or their appetites, regardless of the consequences to the industry of the present, or the revenue of the future.

But it was not alone through the increasing pressure of taxation that the steady diminution of the money supply during the first centuries of the Christian era did mischief to trade and production. The burden of all fixed charges, as between man and man, rents, life annuities, mortgages, experienced a like augmentation. Year by year and age by age, as the original stock of the precious metals dwindled away by wear in use and accidental loss, did it become harder and harder to make money payments; and all the while the profits of all commercial and manufacturing enterprises were being subjected to a stealthy but unceasing loss, due to the enhancement of the purchasing power of money between the time when materials and labor were purchased or contracted for, and the time when the goods were marketed and paid for.

We inquired on a previous occasion into the effects upon trade and production of an increase of the money supply. We saw that, so long as the increase was moderate, it had the tendency (1) by diminishing the weight of all debts and fixed charges, (2) by providing a fund immediately available for new enterprises, for industrial experiments, and for the extension of existing branches of production, and (3) by enhancing slightly the average rate of business profits through a rise of prices between the time of buying and of selling, to keep the productive energies of a people thoroughly employed, and to give a fillip to the zeal and activity of the business class.

It might be thought that this discussion would

serve sufficiently to indicate the effects upon trade and industry of a metallic contraction; but I must, in order to discharge my duty to this important subject, ask attention to a more careful analysis than has yet been necessary of the conditions under which the production of wealth is carried on in all advanced societies.

It would seem that the most important of the questions which political economy is called upon to answer is the question why the production of a people so often falls below, and remains below, what would result from the proper application of its labor power and its capital power to the natural agents—land, water power, mineral resources, etc. —of the country in which they dwell? Why is the actual at times so far short of the maximum production? Yet there is no question with which political economists have so little concerned themselves. There are scores of systematic treatises on my shelves, from which not a hint could be obtained in explanation of the economical situation of the United States at the present moment, and indeed at any time during the past five years—an immense labor power and capital power, only partially employed, while natural resources remain unexhausted, and even in a large degree undeveloped, to which labor and capital might be applied to the satisfaction of human wants. Those wants remain unsatisfied; poverty and suffering result to hundreds of thousands; straitness of means and diminution of comfort to millions more; and yet there is no indisposition of the capitalist to derive an income by allowing the

use of his money in production, and no reluctance of the laborer to work. Abounding natural resources, unemployed labor power, unemployed capital power, no lack of disposition to labor, and yet an enforced idleness, and resulting poverty and squalor.

How can this be? In the absence of any attempt by professional economists to account for the phenomenon, public speakers and the newspapers are driven to answer for themselves the question with which we started. This they generally do by the use of one of two phrases, which seem to be regarded as mutually exclusive. "Over-production" says one party, "under-consumption" retorts another; and those who say over-production ridicule those who allege under-consumption, while the latter retort with equal scorn.

Let us examine the process by which wealth is produced and brought to market. Perchance we shall find that, like all condensed phrases, over-production and under-consumption signify more than one thing each; that, in certain senses, each phrase embodies a great deal of arrant nonsense; that, taken otherwise, each embodies a vital truth; and that, so far as either means any thing at all, that meaning is exactly identical with what is expressed in the other.

All producers are also consumers. They produce only because they desire to consume. They produce only as much as they desire to consume, now or later. The idea of over-production, then, involves the absurdity of supposing that men will labor without the disposition to consume the fruits of their labor.

But passing over this initial absurdity, we notice in the use of the phrase over-production a vague notion that the amount of necessaries, comforts, and luxuries which a community at any given stage of its progress is prepared to consume is a definite amount; and if that amount is somehow, by means not explained though hinted at in mysterious uses of the word "machinery," increased rather rapidly, the capacity for consumption will be outrun, and the community will stand, without appetite, before a mass of wealth, for which it knows no uses, and with which on the moment it is utterly at a loss how to deal.

Rapidly as the productive capability of the more highly civilized nations has been increased in certain periods of extraordinary development, as during the last quarter of the eighteenth and the first quarter of the nineteenth century, by the invention of new arts and the introduction of machinery, there is not the slightest reason to doubt that the disposition of the community to consume wealth would have run ahead of its power of production had the increase been far greater than it was.

Let us look at the matter practically, concretely. Is there any mechanic or laborer receiving wages to the amount of $500 a year who would not be able and willing to spend $1000 or $1500 if he had it? This does not imply that he would consume twice or three times as much of each article of his present consumption, but that he would find means to make way with the larger income, if it were put into his hands, in forms available for his uses, or,

rather, in the shape of money available for any use. Is there any professional or business man spending $3000 or $5000 a year who could not easily and satisfactorily give account of an income of $6000 or $10,000? It is absurd to suppose that the limit of possible consumption can ever be reached. What with houses, and horses, clothes, equipage, and travel, costly viands and drinks, this community, and any community, could double or quadruple its consumption of wealth instantly were the wealth only provided.

The phrase "Under-consumption" likewise involves an initial absurdity as applied to so-called "hard times." Take the present period, for instance. We are suffering, it is said, from under-consumption; and yet it is notorious that never in our history has consumption followed so closely upon production, never has the food earned been eaten up so quickly, never has the margin of possible saving been so small, as in these five years past. The laboring class, working at low wages and perhaps on part time, have had of simple necessity to expend upon their immediate subsistence a larger part of all they produced than in ordinary times. A strange term surely to apply to the present period—this Under-consumption!

But passing by this initial absurdity, we find that beneath the phrase under-consumption lurks a vague notion that wealth, after it has been produced, gets somehow or other in the way, so that more wealth can not be produced unless the existing stock be eaten, drank, worn out, or burned up, or by

some means gotten rid of. Now this globe is so large that there is room on it for an indefinite amount of good things, and except as existing wealth is required as the material of new production, there is no reason whatever why any portion of it should be put out of the way in order to make room for more. If men were willing to produce wealth without needing or desiring to consume it, they might go on producing to the crack of doom, without under-consumption ever standing in the way of fresh production. As a matter of fact, men will produce only as they desire and expect to consume; but consumption will generally look after itself. The risk of failure is in the production of wealth. Trust men to consume wealth fast enough, if it is only given them in forms appropriate to their uses.

Exactly here, in this last clause, is the rule. Production may, through the force of speculative impulses, especially when improvements and inventions are multiplying fast, or when bad money enters to generate illusions and to work injustice in contracts between man and man, become so perverted from its proper course, so distorted from its true proportions, that the amount of certain sorts of wealth may be increased far beyond what the community require of them, the total production being no greater than it is. This is what is called over-production. It is not, however, general over-production, but only over-production in certain lines, a condition towards which industry is continually tending, and from which it has often to extricate itself and retreat, with not a little of delay, embarrassment, and

ultimate loss. Over-production existing in a few lines, under-consumption of the articles so produced in disproportion necessarily results. The market for these is glutted; production is checked, and inasmuch as the capital and labor engaged can not readily, if at all, be transferred to other branches of industry, they remain wholly or partially unemployed, and the general production of the community is in so far diminished. And so we reach the conclusion that what is commonly termed over-production—which is only local and partial over-production — really means under-production. It is under-production, not over-production or under-consumption, which makes hard times. General under-production is the real evil from which men suffer, is, indeed, the only economical evil from which men can suffer. Over-production, general over-production, is, as we have seen, impossible, and were it to occur, were the creation of wealth to outrun men's capacity to consume, no one would be injured thereby. But under-production is an unmistakable evil. It means less wealth produced, and consequently fewer of the comforts and necessaries of life, on the average, to each member of the community. To large classes it means hunger, cold, and squalor; debility, sickness, and premature death. Let us, then, deprecate under-production; pray against it, perform sacrifices to avert it; but let us not talk about over-production or under-consumption as the cause of hard times.

Setting aside these terms in which, as we have seen, lurks so much deceit, let us analyze the pro-

cesses of industry to find out how it can be that, with natural agents unexhausted, capital and labor power may be absolutely precluded from remunerative employment, while yet capitalists and laborers are eagerly and anxiously desirous to take part in production.

It is evident that, were there no division of labor into separate occupations, production would, within the capabilities of the several agents concerned—land, labor, and capital—only be limited by the effective desire felt by the several individuals of the community to consume wealth. The relation between production and consumption would be a very simple one. Each man, working by himself, for himself, would limit his production by his own desired consumption, and would direct his efforts unfailingly to that consummation. He would, accidents aside, produce only what he desired; he would, within the limits of his power, produce all that he desired with sufficient earnestness to overcome the natural indisposition to exertion.

From this low point of industrial development, where each man, working for himself, by himself, produces the identical articles which he expects and desires to consume, we mark three stages in the progress to the highest productive organization. The first is where distinction of trades is introduced, and men no longer consume the identical articles they have produced, yet where the consumers are known to the producer, and live within a limited area. Production generally waits for an order from the would-be consumer; or, if goods are produced

without a definite order, it is done in the reasonable expectation that some certain person, or some one out of a certain known group of persons, will need the goods soon after they are produced, and will become the consumer.

We find the second stage where the element of personal acquaintance between producer and consumer in the main ceases, and goods are now produced for a general market. Production no longer waits for orders, but anticipates demand, and goods are produced upon a calculation of the quantity probably to be required. So far, this stage marks great progress in industrial development; but it is necessary, in order to complete the description, to add that production is mainly carried on by artisans working singly or in small groups, each being competent to do every one of the successive operations of his trade. Tools and implements are still comparatively simple and inexpensive, and machinery, in the sense in which we use this term, exists only in primitive forms. Fashions are few, and styles remain standard for considerable periods of time, making it safe to produce at an equable rate throughout the year.

The third stage is reached when powerful and complicated machinery is introduced, and costly structures and plant are required; when production becomes highly diversified, and the specialization and localization of trades is carried so far that a single town, or group of towns, produces half the goods of a certain sort consumed throughout the whole world; when instead of a few artisans work-

ing together, all thoroughly accomplished in every part of their trade, all on a basis of substantial equality, great numbers of operatives of both sexes, of all ages, and of every degree of strength, skill, and intelligence, are gathered under one roof, each knowing only his or her own part of the process of production, all requiring to be instructed and disciplined, organized and commanded by a single intelligence and a single will; when fashions become multiplied, and standard styles almost disappear, each year, each season, bringing minute modifications of demand which can not be disregarded except at great loss; and when, consequently, production tends to gather itself into great waves, with corresponding intervals of depression, the highest activity succeeded by dulness, men and machinery kept at work to the utmost limit of power and endurance for six months, in anticipation of the fall and the spring trade, and for the remaining six months of the year kept at the most leisurely pace, or thrown out of employment altogether.

It is evident that, at each successive stage in the progress thus traced, the productive capability of a community will be increased, but that, coincidently, at each stage the opportunities for misunderstanding between the body of producers and the body of consumers are greatly multiplied; and, secondly, that industry falls more and more under the control of men of exceptional abilities, with whom rests all initiative in production. And if we examine the catalogue of articles produced under these conditions, we shall find some of them supplying wants

the most constant and imperative. We shall see others ministering to the lightest tastes, or gratifying the most casual fancies. Between these extremes are a host of products meeting desires of varying intensity. A witness before the House of Commons Committee on Artisans and Machinery in 1824 entered into calculations to show the amount of money expended annually in England for the glass eyes used in making children's dolls, and found it very considerable. But making dolls' eyes is a serious business compared with that which engages tens of thousands of laborers in any large country like England, France, or the United States; hundreds of thousands more are employed in producing articles for personal consumption, the deprivation of which would not induce hunger or cold, or impair health, or be incompatible with public decency or individual self-respect.

Suppose, now, this intricate organization of the producing body to have been carried to its limits, as the result of a long-continued period of general prosperity, leading to the greatest extension and diversification of production, when a disaster, industrial or financial in origin, befalls the community. No matter where it comes from, or where it first strikes, it temporarily diminishes the productive power of the community as a whole. Immediately the consumption of the articles least essential to comfort and decency is in a degree checked. If we suppose the thousands of articles known to the market to form twenty-six groups, A to Z, the importance to human welfare diminishing from the

head of the alphabet to the foot, we may assume that the first effect of the calamity we have supposed to take place will fall upon the consumption of articles in groups X, Y, and Z. The demand for the products of the trades furnishing these articles falls off rapidly. No matter, as we said, where the blow first fell, the laborers affected produce less for the time, and must limit their consumption, which they do by cutting off entirely, or greatly restricting, their use of articles below group W. The labor and capital employed within the lowest three groups can not be transferred easily or soon to other groups. The laborers especially must take the fate of their chosen occupation. Hence they find themselves employed on part time, and at reduced wages. But the sums they formerly earned were expended in purchasing articles all the way from A to Z. In their distress they cut off their consumption of all articles except those of prime importance, say from A to M. This involves a reduced demand for the products N to W. Each group of producers in this part of the alphabet, then, are obliged to curtail still further their consumption of articles X, Y, and Z, while producers from S to W begin to diminish their use of articles below T. This effect at once becomes the cause of new effects. The unfortunate representatives of X, Y, and Z are now obliged to cut off their use of products from H downwards. Producers T to W have to deny themselves all indulgence in products N downwards; producers N to S in products below R.

Group I to M next experience the necessity of self-

denial, while X, Y, and Z are now glad to get enough of A, B, C, and D to subsist upon, and S, T, U, V, W carry their retrenchment upwards till they stop at M; and so the movement goes forward until even the favored producers A to D experience some reduction in the demand for their products, and producing less in consequence, have less to exchange for the products of others, just as a stone thrown anywhere into a lake produces a wave which extends outwards in every direction till it reaches the bank even in the most retired nook along the shore.

It is evident that, were the community perfectly intelligent and self-possessed, the ultimate result of all this would be the distribution of the whole initial shock over the entire producing body. No addition would be made to the force of that shock as the movement proceeded, and the effect upon each successive trade or group of producers would be less as it was found further removed from the part suffering the original impact. Those producing articles the most necessary to life, health, and social decency would suffer to hardly an appreciable extent, just as the wave set in motion by the rock thrown into the centre of the lake becomes the merest ripple by the time it reaches the shore.

This is all that is logically involved in the propagation, through economical media, of an original shock like that assumed; and in just this way industrial injuries are often distributed throughout the producing body, without panic, without apprehension, perhaps without observation. And this is all

that, in any event, could be experienced in the first stage of productive development described; and but little more than this is likely to be experienced in the second stage. In the third and final state of industrial organization, however, lie vast capabilities of disorder and disaster. Let but the shock be sharp and severe, and let it fall in with an anxious, apprehensive mood of the public mind, or find the producing body a little unstrung by reason of political or industrial disturbance, and we shall see the impulse propagated with ever-increasing force from subject to subject till the movement acquires great violence. The commercial panic we are all familiar with, by experience or report. We know how some slight cause, acting on the fears and imaginations of men, will overthrow the commercial structure of a nation in a few weeks, or even days, prostrating the proudest houses, and spreading ruin far around. There is nothing that can stand against panic; one man's fear makes another man afraid; one man's failure brings down another, who, but for him, would have stood firm; and so the mischief proceeds.

Now the same cause operates probably with not less force upon productive industry; but its working is much more obscure. A manufacturer feels the demand for his goods fall off somewhat. In ordinary times he receives the fact as an intimation to reduce his production, but only to a corresponding extent. Indeed, in good times he would receive the intimation in a somewhat skeptical spirit. He would not be disposed to believe that any serious

check was to be experienced. He would look to see trade start up again at the opening of the next season; and in this mood he would reduce his production somewhat less than correspondingly. To that extent he would speculate—that is, he would anticipate events and discount the future. For the moment, then, he would transmit the shock, not aggravated, but modified, from what he received it. In time, if the demand should persist in remaining below the average of past years, he would be obliged still further to curtail his operations; but, even in this event, his action would have served to spread the effect over a longer period.

But let the shock be at first severe, and let it come upon the public mind in a suspicious mood, and the consequences may be indefinitely more serious. The merchant feels the demand for goods fall sharply off. He fears that there is more to come. He is determined not to be caught with a large stock on his hands, and in his orders to the manufacturer he exaggerates the natural and proper effect of the change in the market. He orders even less than the present condition of things might justify. The manufacturer, on his part, knows nothing of the actual falling off in demand; he only knows it as it comes to him heightened by the apprehensions of the merchant. In his turn, he exaggerates the evil and reduces his production more than proportionally. His concern now is, not so much to make profits as to save his capital. He knows he will be safe if he runs his mill on three quarters or two thirds time; and he fears he may lose heavily if he runs full time.

But this action of manufacturer *Z* is of itself, as we have seen, an element in the conditions of production for all the lower letters of the alphabet. As he pays less wages, his workmen have less to spend for the products of other branches of industry. The merchants in these lines, feeling the falling off in demand, exaggerate it in their orders to the manufacturers, especially X and Y. These, apprehensive of worse to come, curtail their operations more than correspondingly; and so the movement proceeds with increasing force. And, let it be noted, however unnecessary Z's action in reducing his production below a certain point, yet, if he only does so, that action makes a corresponding reduction in X and Y's operations just as necessary as if Z had had a good reason for what he did; and if X and Y, in turn, become alarmed, and overdo the thing, that of itself constitutes an absolute obligation upon manufacturers higher in the alphabet to cut down their work and wages.

Two questions arise upon this view of the power of apprehension and suspicion to aggravate the force of any industrial or financial shock in checking production. The first, how far may it be carried? the second, how long may it last?

1. How far may this be carried? May the movement to check production proceed till all industry is locked fast in a vicious circle, no one producing because others will not consume, and no one being able to consume the products of others because he himself produces nothing with which to buy them?

I answer, no. The staple industries, and espe-

cially those producing the absolute necessaries of life, will never be suspended. The demand for their products is so constant and certain that panic can have no great power over them. Groups A to D will continue to produce nearly as much as ever; not quite so much, because there are individuals thrown out by the revolution at the foot of the alphabet who are unable to find a place in the industrial order where they can produce enough to purchase even the barest subsistence. Groups E to H or K, moreover, having to do with articles essential to comfort and social decency, will withstand the shock communicated to them sufficiently to maintain a production not very far below that of good times.

Now so long as A to D produce liberally, and E to H or K produce still considerably, all the persons employed within these groups will have the means of consuming the products of groups still further down the list, and hence industry will be kept alive in those groups which produce articles not essential to life or health or decency.

It is, of course, impossible to state just where equilibrium would be reached in a community of highly diversified production, like England and the United States; but there could, I think, be no question that the causes we have been considering might result, after the series of actions and reactions should be completed, in bringing the aggregate production down to two thirds its former amount. It does not seem irrational to suppose that the movement might even proceed till one half the labor

power and capital power of the community were for the time neutralized.

How long may such a condition of things last? I answer: in theory, it may last indefinitely. Practically, it is liable to be terminated, after a longer or shorter period of suspense, by reviving courage and enterprise on the part of the men of affairs, or through the stimulus to production administered from, it may be, some unexpected quarter. It may be so slowly as to be almost imperceptible, it may be so rapidly as to outrun calculation, that the expansion takes place. This will depend much on the natural temper of the community, much on the immediate cause provoking renewed enterprise, much on accident. The one essential condition is that speculation be initiated—that is, that men begin to look ahead, to anticipate demand, and to discount the future. One man begins to produce no longer on orders, no longer cautiously and fearfully as if it were too much to believe that his goods will be taken off his hands, but in a more sanguine spirit, assuming the initiative in production, and boldly encountering its risks. Producing more largely, his workmen have more to offer for the products of other industries, which is of itself a reason for a larger production in these branches, whose managers and proprietors respond in the same spirit. Finding the demand increasing, they act as if they believed it was about to increase still further. They produce somewhat in anticipation, and thus give their hands more to offer in exchange for the production of still other industries; and so the movement pro-

ceeds, gathering force as it goes, and production swells continually under the contagious influence of hope and courage, just as before it shrank and shrivelled under the breath of fear and panic.

I have said that peculiarities of national character have much to do with the speedy or tardy revival of production. Nowhere ought recovery to be more rapid than in the United States, for among no people is there more of elasticity in respect of hope and courage, greater alertness of action, more readiness to assume responsibilities and to run risks. Nowhere, too, does nature afford an ampler margin for subsistence, or more abundant material for the repair of mistakes and misadventures.

The history of the panic of 1857 offers a capital illustration of the facility with which the American people recover from the sharpest contraction of productive industry, where nothing withstands the revival of trade, and where no second shock remains to be experienced. The country was in a generally sound condition, both as to capital and credit, when the blow fell. As the result, industry had scarcely shrunk to its minimum, under the baleful influence of panic, when the enterprise and courage of merchants and manufacturers began to cause expansion, and within a few months our production was again at the limits of our capital and labor power.

When the panic of 1837 came, the country was in a wretched condition, through the misapplication of capital and the wide extension of credit. The buoyancy of the national temper led even at this time to a speedy revival; but the succeeding shock of 1839

threw the country back again, and the fear and distrust thereby engendered kept the energies of the nation in a state of partial repression through a long, weary period, extending down to 1843. Such may be the influence of a single instance of hard fortune upon reviving industry. Quite as prejudicial to expanding production is the continual apprehension of hostile or meddlesome legislation. When the whole body of business men are sore from disasters, when much of the industrial and commercial structure still lies in ruins, it takes but little to check the disposition again to adventure capital, the more valued and the more anxiously considered because of losses already sustained. That little is abundantly supplied by the popular apprehension of legislation unfavorably affecting money and credit.

Returning from this long excursion into general economics, we shall easily and quickly make our application of the principles we have gathered to the question now under discussion. At a glance we can see what are likely to be the effects on trade and industry of a contracting metallic circulation. Just as a metallic inflation adds a premium to business profits and gives a fillip to the spirit of adventure, so that, in the phrase of Hume, "every thing takes on a new face; labor and industry gain life; the merchant becomes more enterprising, the manufacturer more diligent and skilful, and even the farmer follows his plough with greater alacrity and attention," so a metallic contraction constitutes a tax levied day by day upon the profits of business; just so much is taken from the encouragement to contract

for labor and materials and undertake production, and added to the natural risks and losses of manufacture and trade.

In ordinary times, when all other circumstances favor production, the influence of a contracting circulation, though it must be exerted prejudicially to enterprise, may have no very serious results; but in times of business failure, of disaster to trade, of general apprehension and alarm, such a weight can not be thrown into the scale against the profits of business without great evil. And when production has collapsed in consequence of some shock from whatever source proceeding, the steady, unremitting pressure of a contracting circulation must constrain the energies of the community, must check the forward impulse, must increase the chances of loss in the initial adventures of reviving production, must strongly tend to prolong the period of suspense, and create an industrial valetudinarianism from which the nation may not soon recover.

It need not be a great thing under a man's arms which will so increase his margin of buoyancy as to enable him to float for hours. It is a very little thing around a man's neck which will so diminish his margin of buoyancy—narrow at the best—as to drag him to the bottom.

CHAPTER VI.

SILVER AND GOLD AS MONEY.

WE have thus far spoken of the precious metals without distinguishing between silver and gold, as if they formed a homogeneous body of money. As a matter of fact, silver and gold have always had their terms of mutual exchange; the one has been habitually bought with the other. Of all possible ratios of exchange, there can at any given time, in any given place, be but one which will extinguish all preference for the one metal over the other. Let that ratio be departed from, in ever so small a degree, and men will begin to turn gold into silver, or silver into gold. Let that ratio be widely departed from, and the exchange of the metals will become active.

The great historical trade in the metals has been that between Europe and Asia. In the earliest ages of which we have record, silver flowed from Europe to Asia; gold returned in a stream of smaller volume to Europe. This exchange of gold for silver between the West and the East constitutes the most important exception to the statement previously made regarding the non-economical nature of the production and distribution of the precious metals in the early ages. The Tyrians, and after-

wards the Carthaginians, employed their great commercial talents in exchanging the silver of Western Europe, and especially of Spain—the reputed Tarshish of Scripture—for gold with Arabia and the further East, perhaps with India itself. That preference of silver over gold, at the rate at which gold would purchase silver in Europe, has not yet been extinguished in the oriental breast. Still the Indian demand constitutes one of the most important elements of the silver problem.

I said that as silver flowed to Asia, gold returned in a stream of smaller volume. It may be thought I should have said of much smaller volume. But, in fact, the terms of exchange between the metals were not in early ages so unfavorable to silver as we have known them in our day, or even as we are accustomed to think of them in the past. Fragments of classic works remain, which intimate that at one period silver was valued much more highly in Arabia, weight for weight, than gold, while the learned researches of certain modern writers seem to establish the fact that the value of silver in many countries and for long periods equalled, if it did not exceed, that of the metal now esteemed the more precious, And even in our own day it was found that in Japan, just then opened to our trade, the value of silver to gold in the coinage was as one to four. It need not be said that American and European enterprise gave the Japanese an early lesson in the relative value of the two metals, which caused a speedy reformation of the coinage to suit more nearly the facts of the outside world.

In Europe we have no record of any such near approach of silver to gold in value. Until within the last five years gold has from the earliest time been more valuable than silver in the ratio of from 9 to 16 : 1. Since 1873 we have seen an ounce of gold purchase not less than 20 ounces of silver.

The point now reached requires us to make a distinction not heretofore found necessary. It has been said that value is purchasing power; the power of commodities in exchange for each other. Price is the power to purchase money; it is the money value of commodities. Money itself, then, while it has value —*i.e.*, power to purchase commodities, has not price —*i.e.*, power to purchase money. To regard money as purchasing money, so long as money is considered homogeneous, would be an absurdity. No reason for preference could exist, and hence no exchange would take place.

But when we come to contemplate money as composed of two variable elements, it is evident that the value of either may be expressed in terms of the other. Hence, we may speak of the price of gold, meaning its silver-value; or we may speak of the price of silver, meaning its gold-value.

It is easy to find reasons for variation in the gold value of silver, the silver value of gold.

1. The metals have in a great degree their separate sources and conditions of supply. Silver is generally drawn from deep mines. A very large part of all the gold produced in the history of the world has been drawn from "placers"—surface deposits, where the metal lies in fine grains, mingled with the

sand in the beds of old rivers, or has been derived by the process of hydraulic mining, where the force of water is directed by engineering skill to accomplish the same work in a few hours which in the case of the "placer," or "gulch-gold," has been done by centuries of frost and flood. Hence, the production of silver is generally pursued through systematic mining operations. The production of gold is more largely influenced by accidental discoveries. Moreover, owing to its very low affinity for other metals, gold is largely found native, while silver, from the high degree of affinity it exhibits, is generally found in ores; so that the problem of its production involves both mechanical and chemical elements.

It will appear from what has been said that the comparative production of gold and of silver is likely to be influenced greatly by accidental discoveries of deposits, which are likely especially to favor gold production, and to be influenced greatly, also, by the progress of the arts, which is likely especially to favor silver production. The distinction between gold and silver, as to their conditions and sources of supply, is carried out, in a general way, to the continents of the globe which produce them. Europe and South America have been the great historical silver continents; Asia, Africa, and Australia have chiefly, almost exclusively, produced gold. North America is the only continent that has produced the two metals in any thing like equal value. First, through the Mexican mines, it made important contributions to the stock of silver; then the Californian discoveries constituted it the great-

est gold field of the world, and more recently the extensive silver deposits of Nevada have turned the scale of production to the side of the other metal.

2. The precious metals have, in a certain degree, their separate sources of demand. The uses of gold and silver in the industrial arts are widely different. In the ornamental arts the tastes of an age or a people may assign a preference now to one and now to the other. Even in their function as money, gold and silver have not been wholly of common or indifferent use. The habits and traditions of a people and the scale of their exchange transactions may make an ounce of gold, for instance, more desirable for use as money than a certain number of ounces of silver, while among another people that quantity of silver may have a decided preference for the uses of exchange. Practically it is of great consequence that the metal or metals to be employed as money, while possessing high value for a given bulk and weight, should yet be found in quantity sufficient to afford pieces of such purity as to remain bright and clean in circulation, of such size as to be handled and carried about conveniently, in number sufficient for the needs of the community. It is evident that the number of money pieces will depend upon the spending habits of the people, and that these habits will vary with their social condition, the equality or inequality with which wealth is distributed among the classes of the community, the rapidity of circulation, etc., etc. Iron once served the Lacedæmonians as money; but it would be an impossible money to-day for any but a nation of outright savages. Copper

once formed a considerable part of the monetary circulation of Europe, with the highest advantage of the commercial community. The prejudice of the Athenians against copper coins, which led them to use silver coins for the exchange of low values, was unreasonable, and caused great practical inconvenience, inasmuch as the coins thus used were little larger than the scales of a fish, easily lost, and very troublesome in handling. But copper has now dropped out of use as money in all advancing nations except as the smallest of small change. Within the last three hundred years silver has become the ordinary money of the civilized world, and it has already become quite a fashionable doctrine that even silver has in a large measure survived its usefulness, and has grown too heavy to serve as the money of communities like those of Europe and North America. However this may be, it is manifest that in the United States, England, and perhaps France, the prevailing rates of wages and prices are such as naturally to create a preference, from considerations of convenience only, for gold, in place of silver, as the money of general circulation.

We have seen that the two so-called precious metals have each its own sources and conditions of supply which are widely different from those of the other; and that they have also, in a certain degree, separate sources of demand. Evidently here is the occasion for large and frequent variations of value in the gold-value of silver, in the silver-value of gold.

But while this occasion for a divergence in value

between the precious metals exists, there are causes which serve more or less effectively to restrain that divergence. These are:

1st. The durability of the metals already noted. We have seen how this property tends to keep the value of gold or silver comparatively steady, since the great mass at any time in existence allows an excess or deficiency of production for one year, or for a term of years, to exercise but small influence.

The same cause operates to reduce the extent of the variations in the gold value of silver and the silver value of gold. If the crop of corn falls off on the same year on which the output of coal is exceptionally large, we look to see the power of a given quantity of corn to purchase coal largely increased; but a very great increase in the yield of silver co-incidently with a considerable reduction in the yield of gold could not seriously affect the relative value of the two metals, unless persisted in for a term of years.

2d. The interchangeable use of the two metals in the arts of decoration, and for purposes of ornament, has a tendency to reduce variations in their relative value. While some of the uses of each metal are characteristic, there is also a wide field occupied by them in common or indifferently. Articles of silver and articles of gold are kept for sale in the same shops; they are sold to customers in the same rank of life. A person entering such a shop often has no explicit intention as to the article he is to purchase. He is more likely to know how much he is prepared to pay for something that will an-

swer his general purpose. He may buy a small article of gold, or a large one of silver. A fall in the price of either metal, then, promotes its consumption, and thus the fall is in a degree checked.

3d. The interchangeable use of the two metals as the medium of exchange has a strong tendency to check variations in their relative value. Although, as we saw, each has uses in exchange which give it a preference within that field over the other, there is also ground which they occupy in common or indifferently. For payments of a certain class people can use more silver or less silver, more gold or less gold, with no appreciable diminution of convenience. Take for illustration the English half sovereign. The number in use is very large, and the coin may be said to be on the whole a public convenience. Yet, in getting change for a sovereign, at one time you receive a half sovereign, with half crowns, florins, and shillings for the balance; at another, you receive the whole in silver, and you really don't much care which.

Within this common ground, there is room for a greater or less use of either metal, which allows demand to be increased or diminished to correspond with changes in the supply.

4th. The interchangeable use of the two metals, as the standard of deferred payments, under sanction of law, produces a direct and very considerable effect in checking variations in their relative values, that effect being proportioned to the extent of the exchange transactions to which such interchangeable use applies.

145

It is upon this last point that the theory of bimetallism, or the alternate or concurrent use of the two metals as money, is made to depend. It is acknowledged by its advocates that the force of the influences noted under the first three heads is exhausted in reducing appreciably the natural variations in the relative value of gold and silver; but it is claimed that the law, by making either gold or silver, indifferently, legal tender in payment of debts, can reduce the variations to a minimum, or cause them to disappear altogether.

Let us recur to our statement of the principle which governs the value of either metal, or of both so long as they are regarded as forming a homogeneous mass of money metal. We saw that the value of metallic money is not governed by the cost of production, in the present or in the past, but results solely from the relation existing between demand and supply, the past cost of production being only relevant as having influenced the present supply, the present cost of production being only relevant as likely to influence the future supply. In the existing situation it is only the demand for money, taken in connection with the supply of it, which determines price—that is, the value of money.

How, then, can law, or the action of government, affect the value either of gold or of silver?

In one of two ways only. By influencing the supply of the metal, or by influencing the demand for it.

Can law influence the supply of a money metal? Only by first influencing the demand. No mere declaration, or proclamation, or decree, can in-

crease the weight or the bulk of the mass of such metal in the hands of men, or have any effect to discover new deposits of such metal, or diminish the mechanical and chemical difficulties to be overcome in producing—bringing forth—the metal from existing mines.

Can government administratively influence the supply of a money metal? Only by directing labor and capital already in existence, and applicable, or actually applied, to other uses, into that channel. We have seen that the arbitrary rulers of the old world, the princes and potentates of an early age, did, in fact, vastly increase, by the exercise of their will and power, the amount of gold and silver, creating a stock so vast, even with the rude tools and unskilled labor of those days, that it was not equalled for more than two hundred years after the discovery of America. But this was only accomplished by an expenditure of labor force of which it is difficult to conceive, leaving those countries poor in other respects, and, in the end, destroying entire populations.

It is not, however, from legislation, or through the action of government in influencing the supply of either or both of the money metals, that the advocate of bimetallism expects to derive the force that shall neutralize the admitted tendencies to divergence between the respective values of gold and silver. It is wholly through an operation upon the demand for the metals severally that he looks to see this accomplished.

We therefore pass to this head: Can law or government influence the demand for a money metal?

Clearly, unmistakably, Yes. Government can in a very great degree influence the demand for either of the money metals by coining it into money, and conferring on the coin legal tender power.

Let us suppose, for the purpose of illustration, that the value of gold bullion in the market is to-day to that of silver bullion of equal weight as 10 : 1. Let us suppose that at this moment there begin appreciably to operate causes affecting either the supply of silver or the supply of gold, or the demand for silver, or the demand for gold, in such manner and degree as if not withstood would soon bring about the ratio 10.25 : 1—that is, so that one ounce of gold should now command in exchange 10¼ ounces of silver, instead of 10 ounces, as previously. But let us also suppose that at the moment when the ratio of the market stood as 10 : 1, this was by decree of government made the mint ratio—that is, it was provided that 250 grains of silver should be rendered at the mint into coins having the same power in the payment of debts as gold coins containing 25 grains; and that every person should have the right to bring either gold or silver bullion to the mint, and, after only the delay involved in coining the bullion into money, and after only the deduction of so much gold or silver from the mass as would repay the actual cost of coinage, receive back his bullion rendered into coins, having inscriptions and devices expressing their legal tender power, as above. Is there any virtue in such a provision of law to counteract in any degree the force of the natural or commercial causes tending to

produce a departure from the ratio 10 : 1? If such virtue resides in the law, will it suffice to keep the price of gold and of silver steady at the ratio of the mint?

I answer, there is such virtue in the legal provision recited; whether it will prevail to hold the market ratio and the mint ratio steadily together, will depend on the comparative force of the natural or commercial causes operating to produce divergence, and of the legal or political cause operating to withstand divergence. There can be no question that the law can influence the relative demand for the two metals; the only matter of question is whether it can do so fast enough and far enough to offset the effect of the changes in demand and supply produced otherwise.

First, let us inquire precisely into the mode in which the legal tender provision operates to affect the demand for either or both the money metals.

In the case assumed, let us suppose that the causes operating towards divergence are strong and persistent enough to carry the ratio to 10·05. Now, as ·05 is to 10, so is ·005 to 1, or ½ per cent. But as ½ per cent is less than the usual seigniorage, or government charge for rendering bullion into coin, no one will send silver to the mint simply because of that divergence between the mint ratio and the market ratio of the metals. Money of one kind or the other is, however, continually being coined in moderate amount, irrespective of such divergence, merely to keep up the supply. So far, therefore, silver will now be coined. Be it much or little that

is needed to keep up the stock, it will all be silver, since both gold and silver have to pay the cost of coinage, and silver bullion is cheaper, relatively, than gold. So far, the money of the country tends to be made up less largely of gold, more largely of silver. But this operation would be slow, corresponding only to the current waste of the existing stock, and to new demands for money for the uses of trade.

Now, let us suppose that the ratio becomes 10·15 to 1. As .15 is to 10, so is ·015 to 1, or 1½ per cent. If in this situation the seigniorage charge were only 1 per cent, an immediate demand for silver would be created for the sake of taking advantage of the difference between the market ratio and the mint ratio.

A French manufacturer, we will suppose, has contracted to pay $10,000 for wages and materials, entering into a certain body of goods which he exports to England and sells at a profit for gold. The proceeds he brings back in silver, securing the premium, at the time, on the gold. The silver he sends to the mint to have it rendered into money, with a part of which he discharges his obligations, which by law are payable either in gold or in silver coin, at the option of the debtor. The issue of this amount of silver money will, if the circulation were amply supplied before, induce exportation of a corresponding amount of money, which will, according to "Gresham's Law" (p. 46), be gold money. This will be sold abroad, and the amount placed to the credit of the exporter, to be brought home at a

convenient time in silver, which will be coined at the mint to pay maturing obligations, and will cause a fresh exportation of gold.

The question whether it is a desirable course for a country to pursue to be thus exporting the more valuable element of its monetary circulation, and replacing it by that which is less valuable, brought from abroad, is not at present under discussion. We only inquire here whether government can, by conferring the legal tender power, influence the demand for either metal in such a way as to restrain the tendency to a divergence from the mint ratio.

Precisely this is done in the instance just given. More and more the demand for silver increases, through the operation of the bimetallic system, as the value of silver falls from natural or commercial causes. On the other hand, the use of gold is to a corresponding degree diminished; and steadily the coined gold is melted down and exported in ingots to swell the stock of bullion offered in the foreign market.

The effect of this twofold operation is manifest. Just so fast and just so far as one metal becomes more abundant, and hence relatively cheaper, the disposition to substitute it for the other metal in the payment of debts leads to an extension of demand. Every debtor seeks it that he may discharge his maturing obligations by means of it. This extension of demand acts directly in contravention of the force which is lowering its value. On the other hand, the metal which, by the operation of natural or commercial causes, becomes dearer, at once, by that

fact alone, falls out of demand. No debtor seeks it as the means of paying his debts; as it comes to him in the course of his business, he converts it at a premium into the cheaper metal, as equally good for his purposes when coined into money. This diminution of demand at once operates in counteraction of the forces tending to raise the value of this metal.

"It follows," says M. Chevalier, writing in 1857 of the bimetallic system of his own country, where the ratio in the coinage was 15½ : 1, "whilst this state of things lasts, that it will be impossible at London, Brussels, Hamburg, or even at New York, or at any other great centre of commerce, for gold to fall much below 15½ times its weight in silver."

"Whilst this state of things lasts." How long is that? Until the dearer metal is substantially all drawn off. So long as, in any commercial country, the mints are open to both metals at a fixed ratio in the coinage, and any considerable amount of the dearer metal remains, so long this process will continue, and so long as it continues it will be impossible for the cheapened metal to fall in any market of the world far below the value assigned it in the payment of indebtedness in the country which gives the debtor the option of the two metals.

This process of substituting the cheaper metal in the circulation, with its necessary effect of deferring, and in the end diminishing, the fall of that metal which would otherwise result from natural and commercial causes, is not less fully recognized by the English economists.

"The crop of gold," wrote Professor Cairnes in

1860, "has been unusually large; the increase in the supply has caused a fall in its value; the fall in its value has led to its being substituted for silver; a mass of silver has thus been disengaged from purposes which it was formerly employed to serve, and the result has been that both metals have fallen in value together."

Professor Jevons, writing in 1874, under the title "The Equivalence of Commodities," says: "It is upon this principle that we must explain the extraordinary permanence of the ratio of exchange of gold and silver. That this fixedness of ratio does not depend upon the amount and cost of production, is proved by the very slight effect of the Australian and Californian gold discoveries."

And the late Mr. Bagehot, the editor of the London *Economist*, and author of the well known work, "Lombard Street," says of the countries maintaining the bimetallic system: "Whenever the values of the two metals altered, these countries acted as equalizing machines. They took the metal which fell; they sold the metal which rose, and thus the relative value of the two was kept at its old point."

Such frank and full admissions of the efficacy of the bimetallic system contrast strangely with the treatment of the subject by most American writers, who have denied all validity to this system, have demonstrated to their own satisfaction that law is perfectly impotent to influence value, and have treated the advocates of silver circulation with contempt and contumely.

The most conspicuous example of the replacement

of the dearer by the cheapened money metal, under the bimetallic system, is that of France after the Californian and Australian gold discoveries. Prior to 1850, the general circulation of France consisted of silver, gold being too valuable to circulate at the ratio of 15½ : 1. During the seventeen years of Louis Philippe's reign, gold was coined only on an average of 12,500,000f. annually. Though the Californian production began in 1848, the influence of the new mines was not felt until 1850. Immediately thereafter the bimetallic system of France was subjected to a severe trial.

In 1846, the total production of the world was estimated at $30,000,000 of gold and $32,500,000 of silver. In 1852, the annual production of gold had risen to $150,000,000, while that of silver had risen only to $42,500,000. When the Californian discoveries took place, the stock of silver in existence was at least one half greater in value than that of gold. Within twenty years these proportions were to be reversed.

The effect was of course to cheapen gold relatively to silver; and hence, under the French law, the coinage of gold began actively. In 1850 it was coined to the value of 85,000,000f.; in 1851, 270,000,000f.; in 1852, 27,000,000f.; in 1853, 313,000,000f.; in 1854, 526,000,000f.; in 1855, 447,000,000f.; in 1856, 508,000,000f.; in 1857, 572,000,000f.; in all, within eight years, 2,721,000,000f.

Coincidently with this movement, the coinage of silver was checked. For the period 1800 to 1848, the average annual coinage of silver had been about

81,000,000f. In 1853, the silver coinage had sunk to 20,000,000f.; in 1854, to 2,000,000f.; in 1855,* it rose to 25,500,000f.; in 1856,* to 54,000,000f.; in 1857, it sank to 4,000,000f.

The effect of the issue of the cheapened metal was naturally to displace a portion of the dearer metal existing in the form of coin, and to cause its shipment to countries not having the bimetallic system. In 1852, the excess of exports over imports of silver amounted to less than 3,000,000f.; in 1853, it rose to 117,000,000f.; in 1854, to 164,000,000f.; in 1855, to 197,000,000f.; in 1856 to 284,000,000f.; in 1857 to 362,000,000f. In all, from 1852 to 1859, inclusive, 1,127,000,000f., computed to be about two fifths of the French stock of silver money.

All this vast exportation had taken place through a premium on silver which ranged generally between one and three per cent. Who gained this premium? Nominally, every Frenchman who possessed a five franc piece might realize the premium ruling at the time on the silver contained in it. Practically, however, the profit was made almost wholly by bankers, manufacturers, and merchants, who stopped the silver in its circulation and replaced it with coined gold. Dealing with the metals in large amounts, it was worth their while to effect the exchange. The holders of small amounts, or single pieces, would in but few instances, comparatively, realize the premium. When the silver had thus been abstracted from the circulation and gathered in masses, it be-

* The years of the war in the Crimea.

came an article of export like any other commodity, and ordinary profits were made by the trade in it.

What was the effect of the operation which has been described upon the gold and silver market throughout the world?

The effect produced was twofold. Gold and silver were held together nearly at the ratio of the French law, 15½ : 1. The production of gold in the period following 1850 was sufficiently large to have caused a very great fall in its silver value. Such a fall was apprehended by those who did not understand or appreciate the working of the bimetallic system. It was feared that gold would sink to two thirds or one half its former value. A veritable gold panic set in. "Frightened," says Professor Levi, "and not without reason," at the possible consequences, some countries heretofore anxious to attract and retain gold in circulation, even at great sacrifices, showed a feverish anxiety to banish it altogether. In July, 1850, Holland demonetized the gold ten-florin piece and the Guillaume. Portugal prohibited any gold from having a current value except English sovereigns. Belgium demonetized its gold circulation. Russia prohibited the export of silver, and France, alarmed, but less hasty, issued a commission to inquire into the matter."

All these apprehensions, however, were vain, so long as France kept open her mints to both metals, and silver remained to be exported. As M. Chevalier remarked in the paragraph previously quoted, it was impossible, so long as this state of things existed, that gold should fall anywhere, whether at

London, at St. Petersburg, or at New York, much below fifteen and a half times its weight in silver. The maximum effect produced by the flood of new gold was to change the silver price of that metal 4¾ per cent, and even this effect in any such degree was momentary; gold nearly recovered its price again, the whole permanent effect of the Californian and Australian discoveries being placed by Professor Jevons at not above 1½ per cent.

The second result of the operation of the bimetallic system, during this critical period, was that gold and silver, thus held closely together by the force of the French law, both declined in value. With the vast increase of the gold supply, it was inevitable that that metal should fall. Without the bimetallic system, gold could have sustained a great fall, while silver would have held its own, or perhaps have risen. As it was, silver and gold sank together, "the depth of the fall being diminished," says Professor Cairnes, "as the surface over which it has taken place has been enlarged."

We have now reached the point where we may inquire what advantages are claimed for the bimetallic system. We have seen that this system is no fiction; that government, by making two metals legal tender for debts, indifferently, at a ratio fixed by law, can profoundly influence the relative value of those metals. But it may fairly be asked, What good is to result from such an exertion of the power of the State? Granting the practicability of such an achievement as holding the two metals absolutely or nearly together for a time, at least, in

spite of natural or commercial causes working to effect a divergence, what is to be gained thereby?

Let us proceed to state the bimetallic claim?

First, the bimetallist asserts that two metals, thus bound together, constitute a better money than either metal by itself could be.

We have seen that the mining of the precious metals has in all ages been a work of highly spasmodic and often intermitted activity. We have seen, moreover, that each metal has its peculiar sources and conditions of supply. The bimetallist, therefore, argues that it is reasonable to anticipate that the variations in production of the one will, in a degree greater or less, offset those of the other. They will not be likely to fall off in their yield at the same time and to the same amount. It would be too much to expect that the maximum production of the one would coincide with the minimum production of the other. But the irregularities of mining fortune could scarcely fail to secure a more equable yield of the two metals taken together than of either one separately.

This assumption, which is in the nature of the case most reasonable, corresponds with the actual course of production. In a certain degree the supply of the two metals has been mutually complemental. Take the present century in illustration. When it opened, silver was in course of rapid production. Three dollars' worth of that metal was taken out to one dollar's worth of gold. Then came the series of South American and Mexican revolts and revolutions, between 1809 and 1829, by which

the Spanish colonies achieved their independence, and then displayed it in practice by all sorts of political folly and fanaticism. The result was a serious check to the yield of silver. The mining districts became the scene of destructive military campaigns, and still more destructive civil strife. So extensive was the waste wrought by these disturbances that Mr. Jacob estimates that the stock of the precious metals in civilized hands fell off one sixth in the twenty years beginning in 1809. So far as the mines then known and worked were concerned, the deficiency could not have been supplied with silver. But gold came in to fill the void. In 1823 the mines of the Oural Mountains took on a steady rate of increase. About 1830 the gold sands of Siberia became known, which, after 1840, came to yield largely. And now only sixty-eight cents' worth of silver was produced to a dollar's worth of gold, against three dollars' worth of silver at the beginning of the century.

In 1848 and 1851 came the great gold discoveries of California and Australia, and the relative production of the two metals was so far altered that only twenty-seven cents' worth of silver was taken to a dollar's worth of gold. For a few years following 1852 the annual production of gold was between $150,000,000 and $180,000,000, while that of silver was only $40,000,000. From 1861, however, the facts of production began to be slightly more favorable to silver. By 1864 the annual yield of silver had risen to $50,000,000, and by 1871 to $60,000,000, while that of gold had gone down, first to $120,000,000, and then to $110,000,000. By 1873 came still

a further change. The yield of silver went up to $70,000,000; that of gold fell below $100,000,000, to $95,000,000, and even $90,000,000.

It will appear, from this recital, that the claim of the bimetallist that the production of the two metals considered as a mass is more likely to be regular than that of either alone, is fully borne out by the facts of production during the present century.

The bimetallist may here retort with great effect upon the monometallist.

The latter alleges that gold and silver, having their separate sources and conditions of supply, are likely to be produced irregularly as compared with each other; that now gold and now silver will be yielded in excess; that, consequently, their relative values must fluctuate greatly, and that a concurrent circulation of the two is not possible.

The bimetallist rejoins that the considerations alleged show how illy either metal alone is fitted for its office as a standard of deferred payments, and establish the great utility of so uniting them in the monetary function that the irregularities of the production of one may be in some degree at least offset by those of the other.

The retort is just. All that the monometallist alleges to show the difficulties of bimetallism is equally competent to prove the great advantage of that system, if only it can be established.

This claim to a compensatory action under the so-called double standard is fully conceded by Professor Jevons:

"Imagine," he says, "two reservoirs of water, each subject

to independent variations of supply and demand. In the absence of any connecting pipe, the level of the water in each reservoir will be subject to its own fluctuations only. But if we open a connection, the water in both will assume a certain mean level, and the effects of any excessive supply will be distributed over the whole area of both reservoirs. The mass of the metals, gold and silver, circulating in Western Europe in late years is exactly represented by the water in these reservoirs, and the connecting pipe is the law of the 7th Germinal, An. XI., which enables one metal to take the place of the other as an unlimited legal tender."

"At any moment," Professor Jevons remarks, "the standard of value is doubtless one metal or the other, and not both; yet the fact that there is an alternative tends to make each vary much less than it would otherwise do. It can not prevent both metals falling or rising in value, compared with other commodities; but it can throw variations of supply and demand over a larger area, instead of leaving each metal to be affected merely by its own accidents."

The second advantage which the bimetallists claim for their system is that, by the establishment of a normal price for each of the two metals thus joined in the money office—a normal price of gold in terms of silver, a normal price of silver in terms of gold—a Par-of-Exchange is created and sustained between the nations using gold and the nations using silver.

This claim, again, is one that can not be gainsaid; it is only the degree of importance to be attached to the result which can be matter of question. We have seen that, so long as any one nation keeps its mints open to both metals at a fixed ratio, and retains a considerable quantity of the dearer metal, the cheapened metal can never fall far below

that ratio. It may go below by one, two, or three, or, possibly, for the moment, four or five per cent; but it is impossible that it should break loose, and be governed simply by its own conditions of production, so long as the substitution of it for the dearer metal is going on in any country. This, we have seen, the European monometallists concede. The natural consequence of this the bimetallists claim to be of vast importance to the trade and production of the world. A nearly stable monetary relation, a proper par-of-exchange, is established between the portions of the world using silver and the portions using gold. The merchant of a silver country exporting his goods to a gold country can always compute precisely or approximately what the gold he obtains by the sale of his merchandise will be worth in silver. He can thus make his arrangements for business, and his contracts for labor and material, with confidence. In the same way the merchant in a gold country, exporting his goods to a silver country, runs no risk of loss through fluctuations in the comparative value of the metals in which he buys and in which he sells, respectively. The two have a nearly fixed relation, and can thus, with but a small margin, if any, be rendered into each other for the purposes of international exchanges. The gain to commerce and, through commerce, to industry, resulting herefrom, is asserted by the bimetallist to be very great. Imagine, he says, the condition of international trade, for the course of this century, had a normal price of silver not existed by virtue of the French law. Had all the countries of the world

been either gold countries or silver countries in 1848; had there been no countries making both gold and silver legal tender indifferently for debts, what would have been the fall of gold under the tremendous increase of production in the fifteen years that followed? How great the disturbances of exchange that would have resulted from the successive plunges downward of the cheapened metal, rejected now by one State and now by another!

Please to recall the statement already made, that, at the beginning of the century, three dollars' worth of silver was produced to one dollar of gold, while in 1852 only twenty-seven cents' worth of silver was produced to one dollar of gold. Can it be questioned that, but for France serving as the *parachute*, to use M. Chevalier's phrase, to break the fall of the metal produced in such astonishing profusion, the trade between the two great divisions of the world, the gold group of States, and the silver group, must have received a succession of terrible shocks, and, even after the worst was over, have remained subject to frequent and extensive fluctuations of exchange introducing into all commercial transactions great uncertainty and large contingencies of unearned gains and undeserved losses, than which nothing can be more prejudicial to industry?

Such is the bimetallic claim. As to the nature and direction of the immediate effects produced by thus uniting the two metals in the coinage, there can be no intelligent question,

I said, the nature and direction of these effects. The monometallist may, not irrationally, dispute

the importance attached to the results reached; he may urge that they are obtained at too great a cost to the individual nation or nations sustaining the burden of thus creating and preserving a par-of-exchange between the gold countries and the silver countries; he may argue that, should the excessive production of one metal be protracted through a considerable period, the stock of the dearer metal would be completely drained out of the bimetallic countries; the bimetallic system would be no longer effectual, and the natural and commercial causes tending to produce divergence between the values of the two metals would thereafter operate unchecked.

All this is within the limits of reasonable dispute.

CHAPTER VII.

MODERN BIMETALLISM.

WE have gone to the extreme verge of neutral territory in the great dispute which has been raging for years, and which as yet shows no signs of dying down, respecting the relation of gold and silver in their use as money. All beyond is the field of active controversy. Before we leave this vantage ground, let us pause to note precisely the point we have reached.

We have seen that there are natural and commercial causes which may operate to produce either an incessant fluctuation in the relative value of silver and gold, or a wide and increasing divergence, from year to year, through a long period, from the ratio of exchange existing between the two metals at the commencement of the period. So far are the sources and conditions of supply of the one different from those of the other that, notwithstanding the influence of the durableness of the metals in giving steadiness of value to either by turns, and hence to the two in their relation to each other, it would be in the highest degree unreasonable to assume that the ratio of exchange between gold and silver would remain unaltered through any considerable term of years. The annual or monthly variations

may take the form of oscillations, now on one side and now on the other of any historical ratio, or they may be cumulative on one side of that ratio, producing a divergence increasing from month to month, and year to year; but variations in some degree, in some direction, are to be expected under the unrestrained operation of causes influencing the demand for, or the supply of, each metal.

The conditions, natural and commercial, which determine the ratio of exchange of the two metals being such, we have seen that government may enter, and, by making the two indifferently legal tender for debts at a ratio fixed by law, may, for the time, counteract the operation of any and all forces tending to produce divergence. So long as any country establishing such a principle holds a considerable amount of that metal which, under the natural and commercial conditions of supply and demand prevailing at the time, tends to become the dearer of the two, it is impossible that the cheapened metal should there, or in any market, fall far below that ratio. By the force of the bimetallic law, the substitution of the cheapened for the dearer metal will at once begin; and so long as that continues, the divergence of the market ratio from the mint ratio can never be wide. Why should any one in London or New York pay much more than fifteen and a half ounces of silver for an ounce of gold, when gold can, at any time and in any amount, be obtained for silver at the rate of fifteen and a half in Paris?

This operation of the bimetallic system can not be denied; but there is ground for dispute as to the

degree of the advantages to result, and as to the cost at which those advantages are to be obtained. The monometallist, or advocate of the so-called single standard, is disposed to disparage the benefits to be expected, and to magnify the expense of this system. He points to the fact that the two metals do not actually circulate in the same country, at the same time, in any considerable degree; that it is always the one metal or the other which is used as money, according as the market ratio diverges to the one side or the other of the mint ratio, while the coin made from the dearer metal acquires a premium, and is exported or hoarded. Hence it is said bimetallism really means the use of but one metal in a country at a time. It is not a double standard, but an alternate standard.

To this the bimetallist replies that the concurrent use of the two money metals, side by side, in the same markets, is a matter wholly of indifference. The merit of the bimetallic scheme does not depend on this at all.

The object of bimetallism is, by joining the two metals together in the coinage, at a fixed ratio, to diminish the extent of the fluctuations to which the value of each would be separately liable, by generating a compensatory action between the two, by which the cheapening metal shall receive a larger use, while the appreciating metal drops partially out of its former demand, thus making the two fall together, if there must be a fall, or rise together, in the opposite case; or, conceivably, making the ten-

dency of one to fall precisely counteract the tendency of the other to rise.

Thus we may suppose four successive cases to illustrate the working of this principle.

The first is, where the demand for the use of either metal in trade remaining the same, a large increase in the supply of one metal, A, takes place, the supply of the other, B, remaining unchanged. In this case, without the bimetallic system, the value of A would tend to fall rapidly through a considerable space, while the value of B would stand fast. With the bimetallic system, the joint supply of the two metals would be applicable to meet the joint demand for the two. Now, as the joint supply has been increased without any change in the joint demand, there must be a fall in value; but the fall will be in the two indistinguishably, except for a slight degree of delay and friction in exchange. Both will fall, but the depth of the fall will be diminished as the surface over which it is to take place has been enlarged.

The second is where, the demands of trade for both metals remaining the same, a diminution occurs in the supply of A, while the supply of B remains unchanged. Here, by the operation of the same principle, a rise in the value of money will take place, since the joint supply has been reduced without any corresponding change in the joint demand. The rise will be a rise of the two metals indistinguishably, the height of the rise being diminished as the surface over which it is to take place has been enlarged.

The third case is where, demand remaining the same, the supply of both metals undergoes a change in the same direction, either of increase or of diminution, at the same time. In this event, the fall or rise will again be of the two indistinguishably, the point reached being a mean between the points which would have been reached by the two severally.

The fourth case is where, demand remaining the same, the supply of the two metals undergoes a change at the same time, but in opposite directions, A through diminution, B through increase. In this case, the opposite tendencies will counteract each other. If of equal force, the value of money will be stable; if of unequal force, there will be movement in the direction of the stronger to the extent of the difference between the two. Instead of one falling and the other rising in value, the change will be wrought in the two indistinguishably.

It will appear from the foregoing statements that, under the bimetallic system, the value of money will be liable to vary more frequently than under the monometallic system. That is, a change in respect to either constituent of the money mass will produce a change of value; and it is apparent that the chances of change are greater with two constituents than with one. On the other hand, the variations under the bimetallic system are likely to be less extensive. Indeed, it is a matter of practical certainty that they will be far less extensive than they would be under the monometallic system, whichever metal were adopted as the standard of deferred payments.

But, again, the monometallist interposes the objection that the bimetallic system is only to be supported at great expense to the States maintaining it; that they lose by the exchange of the dearer for the cheapened metal, even though they acquire a certain premium in doing so, and that sooner or later the stock of the dearer metal in the bimetallic countries will become exhausted, and the system will collapse, the price of the two metals no longer being held closely or nearly at the former ratio by the possibility of exchanging them at that ratio, freely, in any amount.

How far a bimetallic country loses by the alternation of the metals in circulation, as now one and now the other becomes the cheaper at the coinage ratio, is a nice question.

That the service rendered to the commerce of the world by establishing a normal price for each metal in terms of the other, and thus creating and maintaining a par-of-exchange between gold countries and silver countries, is worth far more than its cost, seems to me beyond a rational doubt. It would, in my view, be as reasonable to doubt whether London Bridge repays the expense of its erection and repair. Were the cost of this bimetallic service, whatever it is, properly assessed upon and collected from each commercial nation of the world by turns, according to the proportion in which it derives advantage therefrom, I think it might safely be said that no one of these nations would sustain a single other charge which so fully justified itself in the return it made, whether that other charge were for

works of construction, for the administration of justice, or for any other strictly necessary purpose.

But there is no assurance that the cost of the bimetallic system will be thus equitably assessed. If the whole charge of erecting and repairing London Bridge were thrown upon the merchants of the two or three streets nearest thereto, while yet the whole population were allowed to use the bridge, free of toll, there would not unnaturally arise a strong sense of injustice on the part of those who bore this burden for the public benefit; it might even become a question whether the undoubted advantages derived by them from the use of the bridge repaid the disproportionate expense which it caused them. If the maintenance of the bimetallic system involves a certain burden on the nations which sustain it, as I am disposed to think is the case, it fairly becomes a question whether those individual nations are compensated for bearing the whole expense of the service by their share of the advantages resulting therefrom to the trade and industry of the world.

That England could well have afforded, throughout the present century, to maintain this system for her own benefit, whatever it cost, even though other nations profited by it in greater or less degree, is clear as the light. That France, a country of far less extended international trade, has been compensated for bearing so large a part as she has done of the burden of maintaining a par-of-exchange for the commerce of the world, by her share of the resulting advantages, I make no question; but it must be admitted to be fairly a matter of dispute.

On such a point it is evidence of no small value that the French people themselves and the French statesmen, though singularly acute and sagacious in matters of finance, have apparently not doubted that the bimetallic system was for the interest of their country. Certain of the French political economists—MM. Chevalier, Levasseur, Bonnet, Mannequin, Leroy Beaulieu—from their theory of the subject have held that France lost by her policy in this respect; but the financiers of that remarkable nation held firmly to the "double standard" from 1785 to 1874. And though France at the latter date restricted her silver coinage, and two years later stopped it altogether, it was not done as the result of any change of views. Partly it was from deference to her monetary allies, Belgium and Switzerland, but chiefly because the demonetization of silver by Germany and the sale of the discarded metal of that empire brought a sudden strain upon the bimetallic system which threatened to break it violently down. Hence France closed her mints to silver, but not with any confession that her policy had been erroneous under the conditions previously existing; not from any desire to abandon that policy should the future offer conditions which would admit the resumption of bimetallism. It was the declaration of M. Léon Say, the French Minister of Finance, the President of the International Monetary Conference of 1878, that France, in suspending the coinage of silver, had taken no step towards the single gold standard, but had placed herself in a position to await events, a position which she would not

leave till good reasons for action should appear, and then most probably to re-enter on the system of the double standard.

It may be that France will not resume the free coinage of silver. There is too much reason to fear that the silver States have been so weakened by the defection of Germany, and the gold States so strengthened by her accession, that France and her monetary allies will no longer be able to mediate between them, and secure a par-of-exchange between the gold group and the silver group; it is even probable that the Latin Union, after holding on to silver for a while against an increasing pressure, may at last be compelled to let go, and send their stock to join the discarded metal of Germany and the Scandinavian States, in India and China; but this result will afford no justification to those whose ill-considered recommendations and hasty action broke down the system which so long and so well subserved the highest uses of international trade.

France has shown herself abundantly capable of caring for her own financial and industrial interests. If she was willing to carry on the bimetallic function for the benefit of all christendom, aye, and of heathendom to boot, other nations might at least have allowed her to do so. Perhaps France understood her own interests better than those who showed such an unselfish concern for her welfare, such a benevolent unwillingness to have her sacrifice herself for the good of mankind. Certainly the results of the past five years have shown that she understood the gen-

eral interest of nations much better than did the financial reformers of 1871.

The objection that the stock of the dearer metal in the bimetallic States must, if the drain be indefinitely continued, become after a while exhausted, and that the system will then lose all its efficiency in holding the two metals together, is unquestionably valid; but an altogether unreasonable weight has been assigned to it in the discussion of bimetallism as a scheme of practical statesmanship.

If we look at almost any treatise written from the monometallic point of view, we shall find that it is taken as conclusive against that scheme, that conditions of supply and demand can be assumed for the two metals separately which would result in the complete exhaustion of the dearer metal, and the consequent loss of all virtue in the bimetallic scheme. The bimetallist is confronted with a series of adverse conditions, taken each at its maximum and piled one above the other without the least regard to the modesty of nature, or the experience of the past; and is then challenged to say whether the system he proposes could be maintained under such circumstances. If he is candid enough to admit that bimetallism would fail there, it is taken for granted that the whole question is disposed of.

Now, human institutions are not to be judged of, and approved or disapproved, by such methods. The folly of reasoning like this would be seen at once were it applied to ordinary political matters. No government on earth could stand against one fourth or one tenth of the elements of hostility

which might conceivably be arrayed against it. Mankind do not, therefore, refuse to form governments.

Bimetallism is a political institution for practical ends, and is entitled to be judged with reference to reasonable probabilities. It may claim the benefit of the chance that adverse conditions will be offset by conditions favorable, and that the adverse conditions will not prove so severe at the start as they may be conceived, and that their force will be more quickly spent than might be feared.

It would be perfectly legitimate ground on which to establish European bimetallism, that the French system, with so little of support from other States, passed within a quarter of a century through the three successive shocks of the gold discoveries of Siberia, the gold discoveries of California, and the gold discoveries of Australia, and yet was not brought to the ground.

With Germany, France, and England joined in a monetary union, no changes reasonably to be anticipated in the conditions of supply of the one metal or the other would succeed in moving the market ratio far apart from the mint ratio thus supported by maintaining over so wide a surface a legal equivalence between the two metals in payment of debts.

And, moreover, while bimetallism is entitled to be judged like any other political institution, with reference to the reasonable probabilities of the future, the allowance which requires to be made for error and extraneous force is less than in most political institutions, inasmuch as the failure of bimetallism involves no disaster to industry or society.

When an engineer designs a bridge which is intended to sustain a weight of eighty tons, he introduces a "factor of safety," say three or five, and makes the bridge strong enough to bear two hundred and forty or four hundred tons. The greater the calamity which would result from the breaking down of the bridge—the deeper the chasm which it spans, the swifter the torrent below—the larger the factor of safety. With many political institutions, likewise, the consequences of failure would be so disastrous that the statesman seeks to introduce a high factor of safety; but in the case of bimetallism no catastrophe whatever is to be anticipated, even in the event of failure. At the worst, after the drain of the dearer metal, in consequence of changes in the conditions of supply, is completed, the bimetallic country is simply in the same position with the countries of the single standard using the cheapened metal. While the process of substitution is going on, it sells the dearer metal at a premium; when the process is over, it is no worse off than it would have been had it originally selected as its sole money of full legal tender power the metal which it has bought at a discount, and which other countries, perhaps its immediate neighbors, are still using. It is not the case of a country seeking to reject the cheapening metal, and to supply its place with the metal which is continually becoming scarcer and dearer, as Germany has been trying to do since 1873. There is all the difference, in the two cases, between going down hill and going up hill.

Not only is no catastrophe involved in the failure

of bimetallism through the exhaustion of the dearer metal, but it is always in the power of the government to arrest the drain at any point without shock.

Thus, in 1874, France and her monetary allies, seeing the prospect of a considerable drain of gold through the importation of the discarded and cheapened silver of Germany, and having decided, whether wisely or unwisely, not to prevent that drain, restricted the coinage of silver without repealing or suspending the law which made gold and silver legal tender indifferently at a fixed ratio. Two years later, finding that the forces operating to lower the value of silver were powerful and persistent, the coinage of silver was peremptorily stopped.

Can one point to any sign that France has suffered any special injury to her trade and production from this act? Germany, which, during the same period, was passing, or trying to pass, from silver monometallism to gold monometallism, has been through a crisis of appalling severity, while France has enjoyed a greater degree of prosperity than any other principal country of Europe. I do not say that the different financial and industrial experience of France and Germany has been due wholly or chiefly to the difference in their monetary systems; but the contrast certainly ought to dispel every notion that if a country enters on a bimetallic course it does so at the risk of disaster.

We have seen what the bimetallic system will effect so long as it continues in practical operation—*i.e.*, not so long as the law making both metals indifferently legal tender remains on the statute book; but so long

as the bimetallic countries have any considerable quantity to spare of the metal which, under the conditions of supply, tends to become the dearer of the two.

We have seen that, while this state of things lasts, the market ratio can not depart far from the mint ratio ; that thus a normal gold price of silver and a normal silver price of gold are established, affording a par-of-exchange for the commercial intercourse between the gold group of States and the silver group, with the additional result that the mass of money metal, thus formed by the legal equivalency of a certain number of ounces of silver to one ounce of gold, fluctuates less extensively in purchasing power than the two metals separately would, on the average, fluctuate.

We have seen that a State, or group of States, may perform this beneficent function without encountering any liability to disaster, even in the event of a failure, through a drain of exceptional violence and duration, to maintain the system in operation ; that even in case the bimetallic State, or group of States, is, as the result, brought to monometallism with the cheapened metal, it will be no worse off than the States which started with monometallism with that metal.

We have seen, however, that the system is kept up at a certain cost, economically, through the occasional substitution, either in part or wholly, of one metal for the other in the circulation. This cost may be variously estimated, but it, in no proper view of the case, constitutes a great tax upon pro-

duction or trade. It is not measured by the divergence of the market ratio of the metals in other countries from the mint ratio in the bimetallic States, because the latter themselves get the premium on the dearer metal when it is exported. It is difficult to afford any measure of this cost or burden of the bimetallic system ; but it seems evident that the process of substitution which has been referred to must be regarded as involving some degree of loss or friction.

We now have to note further that every additional State which joins the bimetallic group, having the same mint ratio between gold and silver, does not only share the cost of the burden with those already in the system, but diminishes the aggregate cost or burden to be borne, and this, not in a slight, but in an important degree, so that should the monetary league become general, the total cost or burden to be divided among the many allies would be inappreciable ; while, should the system come to embrace all commercial States, there would, in theory, be no burden at all to be borne by any one.

Thus let us suppose the commercial world to be divided into sixteen States, A to P, inclusive, the first six having the single gold standard, four, G to J, the so-called double standard of gold and silver, say at 15½ : 1 ; the remaining six States having the single standard of silver, thus :

A, B, C, D, E, F, (G, H, I, J), K, L, M, N, O, P.

It is evident that, in the case of a change in the conditions of supply tending to cheapen silver relatively to gold, the new silver would pass into the

countries of the double standard, G to J, be there exchanged for gold at the rate of 15½ : 1, with some small premium as the profit of the transaction, and the gold would go to the gold countries, A to F, in settlement of trade balances.

The rapidity with which this substitution of silver for gold will go forward will depend, first, on the force of the natural causes operating to cheapen silver, and, secondly, on the force of the commercial causes operating to maintain or advance the value of gold. The length of time during which the drain of the dearer metal can be sustained without exhaustion will (given the rate of movement) depend solely on the stock of that metal existing in the bimetallic states jointly when the drain begins.

But chief among the commercial causes operating to maintain or advance the value of gold is the exclusive power with which gold is invested by law to pay debts within States A to F; while the stock of the dearer metal available to sustain the drain described is made up, not of all the gold in the sixteen States A to P, or in the ten States A to J, but only of the gold in the four bimetallic States, G to J.

Hence we see that for every gold State which adopts the "double standard" the amount of gold available, in the case of a cheapening of silver, to meet the drain of the dearer metal (on which the virtue of the bimetallic system depends) is increased; while the demand for gold in preference to silver at 15½ : 1 (the only cause which threatens the stability of the bimetallic system) is, in just so far, diminished. On the other hand, every silver State that adopts the

"double standard" strengthens the bimetallic system in the case of a cheapening of gold.

Let us suppose the sixteen commercial States to be divided as four gold States, eight gold and silver States, and four silver States, as follows:

A, B, C, D, (E, F, G, H, I, J, K, L), M, N, O, P.

We see that the bimetallic system is now not twice as strong merely, as in the case first assumed, but many times as strong, since not only is the amount of the dearer metal (whichever that may at the time be) subject to drain greatly increased, but the demand for that metal, in preference to silver at 15½ : 1, now comes from four countries only, instead of six, as formerly. The transfer of still another State from each of the two single-standard groups would vastly increase the stability of the bimetallic system, A, B, C, (D, E, F, G, H, I, J, K, L, M), N, O, P. Not only would the base of the system be broadened by bringing the dearer metal of ten States, D to M, under tribute in the event of changes operating on the supply of either to affect its value; but the force of the causes threatening the equilibrium of the system would be reduced, since the demand for the dearer metal would now come from only three States: A, B, C, in the case of a cheapening of silver relatively to gold; N, O, P, in the case of a cheapening of gold relatively to silver.

Bring still another State from each group into the monetary union, and the danger of a breaking down of the system, under any change in the conditions of supply which it would be reasonable to anticipate, almost disappears.

A, B, (C, D, E, F,G, H, I, J, K, L, M, N), O, P. Twelve States now supply the dearer metal; only two States will take it in preference to the other at the ratio of the mint. Those two States—whether A, B, or O, P—can not take the dearer metal indefinitely. They will soon be surfeited. A further increase of money in them would only be followed by a fall in its value, which would soon proceed so far as to bring the metals together again. What the one metal would tend to lose in value through increase of supply, the other would tend to lose through diminution of demand.

This is the Modern Bimetallic Scheme advocated by Wolowski and Cernuschi in France, Malou and de Laveleye in Belgium, Mees and Vrolik in Holland, Schneider in Germany, Haupt in Austria, Seyd and the Liverpool writers in England, Horton, Nourse, and George Walker in the United States.

It differs widely from the plan of the so-called "double standard," which was pronounced impracticable by Locke, Adam Smith, and Ricardo. Not the smallest presumption against the reasonableness of this scheme is created by the fact that eminent economists of the past century, and of the first half of the present, declared in favor of the single standard, whether of gold or of silver. Those writers contemplated a condition of international relations in which any thing like general and permanent concert of action, in establishing and maintaining a ratio between the metals in the coinage, would have been wholly beyond reasonable expectation.

In this, the present time contrasts strikingly with

any that has preceded it. It is the age of compacts, conventions, and international alliances. We have conventions relating to the usages of warfare; we have patent-right treaties and agreements respecting trade-marks and the extradition of criminals. We see all around us in successful operation a postal union, embracing all civilized nations, and extending even to some of doubtful civilization. The pioneer at Dead Man's Gulch can send his letter for five cents to almost any region of the earth, whether to New Zealand or to Siberia. And this system, involving much of detail, extensive administrative machinery, and large pecuniary interests, is maintained by more than a score of States, with no friction or jealousy, so far as the public are aware, threatening its continuance.

A general or universal system of bimetallism would involve no machinery, no international accounts, no detail whatever. The simple agreement of governments to coin at a certain ratio would be sufficient for all the objects that have been discussed. If unification of coinage, identity of money-pieces, and mutual acceptance of coins by the several nations forming such a monetary league, were to be added, some machinery for the redemption of worn pieces might require to be brought into existence; but this is not a necessary feature of successful bimetallism, which would be entirely compatible with the retention by each State of its own devices and denominations, and with the exchange of moneys as at present effected.

This altered condition entirely destroys the au-

thority of the judgments pronounced by Locke, Smith, and Ricardo, who have been cited against the system of the so-called double standard. There is nothing to show that one of those writers, had he lived in these days, might not have advocated an international monetary union for maintaining the concurrent circulation of the two metals; just as not one of the writers whom I have named as advocates of bimetallism, would propose the union of the two metals at a fixed ratio in the coinage, by a single State for itself alone.

The question of securing the co-operation of independent States to any end is a political—not an economical—question—that is, the desired object is to be attained by the action of governments, moved by various considerations and interests, and not by the natural working of the laws of trade.

In 1871 Germany, just then unified as the result of wars with Austria and with France, took the initial steps for passing over from silver monometallism to gold monometallism. How far this action was due to prejudice against the bimetallic system as French, how far to the imperialist ambition to supersede the old State coinages of silver by a new coinage of gold, how far to purely economical considerations, it is not our business to inquire here.

In 1871 the financial situation of Europe was as follows: Three states—Great Britain, Portugal, and Turkey—had the so-called single standard of gold; but of these the last had a circulation, in fact, of debased metal and irredeemable paper. Another group of States, comprising all of the present em-

pire of Germany and the three Scandinavian States, together with Holland and Austria, had the single standard of silver. Of these, Austria had a circulation, in fact, of irredeemable paper. A third group of States, comprising the so-called Latin States of France, Belgium, Switzerland, and Italy (having the ratio, 15½ : 1), with Greece, Russia, and Spain, had the so-called double standard of gold and silver. Of these, however, the last four had a circulation of irredeemable and greatly depreciated government paper, like Austria and Turkey, while the notes of the bank of France were at the time, in consequence of the German war, inconvertible into coin, though at a merely nominal discount, the bank holding large reserves of metal, and occupying a position of great commercial strength. On this side the Atlantic, the United States had the "double standard" (at 16 : 1) established by law, but a circulation, in fact, of irredeemable paper—the greenbacks of the Secession War.

Gold States.	*Gold and Silver States.*	*Silver States.*
Great Britain,	France,*	Germany,
Portugal,	Italy,*	Sweden and Norway,
Turkey,*	Belgium,	Denmark,
	Switzerland,	Holland,
	Greece,*	Austria.*
	Russia,*	
	Spain,*	
	United States.*	

Notwithstanding the weakening of the bimetallic group through the suspension of specie payments in so many States, as the result of wars of unification

* Irredeemable paper circulation.

or wars of conquest, the bimetallic system still remained in sufficient vigor to keep the market ratio between gold and silver close to the mint ratio of the Latin States—that is 15½ : 1, or about 61*d.*, British money, for an ounce of British standard silver, $\frac{37}{40}$ fine. Gold had been so far cheapened by the discovery of the California and Australia mines that it formed the greater part in value of the actual circulating medium of the bimetallic countries, and was at a discount of one, two, or three per cent in comparison with silver; but the bimetallic system had for more than twenty years kept gold from being so far cheapened as to drive all the dearer metal out of the countries of the "double standard." Silver was still to be had in indefinite quantity in the Latin States at a slight premium over 15½ : 1; and so long as this continued, gold and silver could not break apart, and come to be governed by their separate conditions of supply and demand. The bimetallic system was still strong enough to establish a normal price for silver all over the world, and thus to maintain a par-of-exchange between the gold countries and the silver countries. If England wanted silver to send to India, she was always sure of getting it at very nearly 15½ : 1 by sending her gold to France. If Germany had to pay gold in England, she was always sure of getting it at close upon the same ratio, by sending her silver to France. The mints of the latter country were open to both metals, and rendered them indifferently into coin having debt-paying power, at the ratio fixed by the law of 1803.

In this situation, the action of Germany between 1871 and 1873, which has been narrated, proved to have the most momentous consequences.

That country had been the greatest buyer of silver in Europe. All the customary demand from this source was at once stopped. Not only so, but, as silver was thereafter to be used only as small change, Germany entered the market as a seller of silver, offering her discarded metal by hundreds of millions. Thus, in a market where demand was abruptly checked, was the supply suddenly and vastly increased. On the other hand, Germany entered the gold market as a buyer to an even greater extent, bringing a vast increase of demand into a market where the supply, owing to the exhaustion of many mines, had already fallen off from an annual yield of $150,000,000 to one of only $90,000,000.

Moreover, Germany in this course carried with her, by an almost irresistible attraction, the Scandinavian States, Denmark, Sweden, and Norway, her natural financial allies, while Holland at once threw herself into a defensive and expectant attitude, closely restricting the coinage of silver and preparing herself for contingencies.

So heavy a reinforcement of the gold States, so great a weakening of the silver States, so vast an accumulated mass of silver subject to immediate sale, so great a strain on the gold market from the new German demand, manifestly were fraught with peril to the bimetallic system. France and her allies had held the balance between the two groups, throwing so much weight as was needed—now into

the gold scale, now into the silver scale, and thus preserving nearly an equivalency between them. The difficulty of keeping up the system, the danger of its ultimate failure, were increased by the transference, bodily, of all Germany and Scandinavia to the gold side. Gold, hitherto (since 1851) the cheaper metal at 15½ : 1, now threatened to become the dearer; and, with so few States remaining to take silver, and so many States demanding gold, the strain on the bimetallic system was likely to be severe and protracted. The statesmen of France and Belgium lost heart, and in 1874 limited the silver coinage. Two years later, finding the forces operating to send down the value of silver to be powerful and persistent, the Latin Union, to which Greece had in 1868 acceded, stopped the coinage of that metal altogether.

Now see what followed this closing of the French mints to silver; and, by the consequences, measure the force which the bimetallic system had previously exerted in holding the metals together.

The mean annual rate of exchange, by weight, of silver had been to one ounce of gold—in 1867, 15·57 ounces; in 1868, 15·60 ounces; in 1869, 15·60 ounces; in 1870, 15·58 ounces; in 1871, 15.58 ounces; in 1872, 15·63 ounces.

In 1873, the silver price of gold fell to 15·92 : 1; in 1874, to 16·17; in 1875, to 16·58; in 1876, to 17·84, while in July of the latter year it fell to 20·17.

The two metals had for seventy-five years been held together by a tie which did not allow even the floods of Californian and Australian gold, un-

precedented in the history of the world, to move the silver price of gold permanently more than 1⅛ points in 100; which did not permit their relative value to change greatly between the time when three dollars in silver was produced to one dollar in gold, and the time when one dollar in gold was produced to twenty-seven cents in silver. Yet no sooner was the tie snapped, this purely legal arrangement broken up, than gold and silver rushed apart with a violence which in three years caused a maximum variation of 1 in 4.

In the face of such facts, the monometallists of this country have insisted that law was perfectly impotent to affect the value of the money metals; that the change in the silver price of gold from 15·63 in 1873 to 20·17 in July, 1876, was due to natural and commercial causes; that the traditional relation of the two metals, which had borne the Siberian, Californian, and Australian gold discoveries, with so little of immediate shock and permanent change, had given way at last under the yield of the silver mines of Nevada!

What have been the immediate effects of the German demonetization of silver?

First, the destruction of a Par-of-Exchange between gold countries and silver countries. France, compelled, as she deems herself, to keep out the flood of discarded metal, no longer sells gold for silver, silver for gold, at a fixed ratio. The consequence is that no merchant in a silver country selling to a gold country, no merchant in a gold country selling to a silver country, knows for how much

of the metal which forms the money of the country to which he exports he must sell his wares in order to make himself good for the metal which he has expended at home in producing or purchasing them.

The British merchant who to-day sells to Calcutta, Hong Kong, or Mexico, may do all that depends on him with the highest wisdom and skill; he may buy the right sort of goods, and buy them at a bargain, ship them in the proper season to the best market, sell them at high prices, and bring the goods safely home to Liverpool, yet a fall in silver between the sale of the goods and the receipt of the proceeds may strip him of all the profits of his venture, of all the fruits of the year's business, or even seriously impair his stock.

So far I am advised, the utmost range of the gold price of silver from the beginning of the century down to 1873 was inside *4d.* an ounce. In the three years following the German demonetization we saw silver run through a range of *14d.* an ounce. Prior to 1873 there were periods of two, three, or four years when the greatest fluctuation did not exceed a penny in the ounce. Since 1873, fluctuations of greater extent have been of almost monthly occurrence.

Fluctuations like these introduce into trade the elements of gambling. And this condition of things is certain to be perpetuated in time, if not aggravated in degree, should the system which for nearly one hundred years maintained a par-of-exchange between gold countries and silver countries not be re-established. Already the result has been to involve commerce between the two great divisions of

the world in all the embarrassments which beset the commercial intercourse of nations paying specie with nations having an inconvertible, and hence fluctuating, paper money.

And note the gratuitousness of all this! Was this failure to sustain the beneficent function which so long had given stability to trade and production due to the refusal of France and her allies to continue this great service to mankind? Did France say, We have carried this burden as far as we will; you may now take your turn at the yoke, or go without the advantages of a par-of-exchange between Europe and Asia, between the West and the East, between the gold group and the silver group? In no sense whatever. France never declared herself unwilling to continue this office. France to-day, through her highest official organs, asserts her desire to resume the bimetallic system.

The destruction of the normal price of silver and of a consequent par-of-exchange between silver States and gold States was the deliberate work of the two States which had most largely profited by it—England, the greatest gold State of the world, Germany, the greatest silver State. England in 1816 demonetized silver; and since that date her economists and publicists have not ceased to preach gold monometallism, and sneer at bimetallism as illogical and impossible in practice. When, in 1867, the first International Monetary Conference proclaimed its crusade against silver, the British Chancellor of the Exchequer, Mr. Robert Lowe, congratulated Parliament and the country on the fact that Europe was at

last preparing to follow in the course which England had marked out fifty years before.

How changed the note of England to-day, as the system to which her ill-considered action gave the first blow lies in ruins around her, and British trade is, all over the world, subject to violent and incessant fluctuations of exchange which have in so short a time undermined many of her strongest houses, contributing in no small degree to the present feeling of general alarm!

But even greater was the fatuity of Germany, which in 1873, against abundant warning, consummated the series of acts which led to the suspension of the French law. A great nation of poor people, with a production for export probably less characteristic than that of any other principal country of Europe, with small reserves of capital and little grip on the markets of the world, Germany, in the arrogance of her military successes, broke down the barrier which had given a high degree of security and stability to universal commerce, and from which none had derived more advantage relatively than herself.

The history of the century will be searched in vain for a political blunder of equal enormity.

The second immediate consequence of the German demonetization has been an enhancement of the purchasing power of gold, now left, throughout pretty much all Europe, to perform the whole office of money which six years ago was performed by a money-mass composed both of gold and silver. The latter having been thrown out of its use as full-val-

ued money, and remitted to the purposes of small change or banished to the East, the value of the former has, by a necessary consequence, risen greatly, even in the few years that have intervened since this disastrous act was accomplished.

The effects upon industry and trade of a diminishing money supply, in enhancing the burden of debts and fixed charges, and in disparaging the profits of business and hence reducing the motives to production, have been discussed so much at length that we need only inquire here as to the fact.

Two notable pieces of testimony on this subject have been given to the public within the past few weeks. In an article in the January number of the *Princeton Review*, Professor Thorold Rogers, of Oxford, in discussing the causes of the present general disturbance of commerce, writes as follows:

"The first cause in importance, the most general, and, in all probability, the most enduring, is the rapid rise in the economical value of gold.

"While the area of civilization is widening, and, therefore, the demand for an adequate currency is being extended, the most populous State of Europe has abandoned a silver for a gold currency, and has had, as a fruit of a successful war with France, an exceptional power of attracting gold to itself, with singular success, indeed, but to the incredible misfortune of its people. Germany has effected a monetary revolution on the grandest scale, and has beggared its own industries.

"Taking into account the growing intercourse of civilized nations, and particularly the sensitiveness which they feel at any event which may check the activity or derange the machinery of trade and production, it appears that at no time has the drain on the existing stock of gold been so sharp and rapid as at present."

On the 28th of December the London *Economist*, in a remarkable article on the causes of the present depression of prices, which that journal finds to be greater than after the panic of 1857, or that of 1866, gives as the principal causes the following:

1st. "There has been a diminution in the supply of gold."

2d. "There has been a marked increase in the demand for gold. The effect of the adoption of a gold standard in Germany, as well as in some other European countries of minor importance, has been, as we have clearly seen, to depreciate the value of silver, measured by a gold standard, in an extraordinary manner. Large masses of silver have been demonetized and thrown upon the market. But, on the other hand, large masses of gold have been required to take their place, while, as has been shown, the supply has been actually diminishing."

The *Economist* concludes that there has been a real fall in prices to the extent of sixteen per cent since 1869. "This is an undoubted appreciation of gold, because it represents a real increase in the purchasing power of gold."

What does an increase of sixteen per cent in the purchasing power of gold practically mean?

It means an addition of one sixth to the burden of every existing debt, national, corporate, and private, payable, as are nearly all the public, and by far the greater part of the private, debts of the world, in gold. It means that, on every day which the laboring man gives to work, to pay his share of the interest and principal of such public debts, or to meet the interest or principal of the mortgage on his cottage or his farm, his hours of labor shall be, not twelve, but fourteen. If those last two hours drag, if brain and hand grow weary with the strain and the toil,

CHAPTER VIII.

GOVERNMENT PAPER MONEY.

IN describing the money function (Chapter I.), we noted that the economists generally refuse the name money to any thing which is not a material recompense or equivalent, to use the phrase of Chevalier, any thing which has not intrinsic value, to use Professor Bowen's expression. We saw, however, that there is no good reason for thus limiting the use of that word. We ascertained, I hope conclusively, that whatever does the money work is the money thing; that whatever passes freely from hand to hand throughout the whole community, in final discharge of debts and full payment for commodities, being accepted equally without reference to the character or credit of him who offers it, and without the intention of him who receives it to consume it himself or to apply it to any use except in turn to tender it to others in discharge of debts or payment for commodities—that whatever does this is absolutely money, without respect to its form or substance.

If the view of the money function here presented is correct, we need, in addition to the distinction between Money and Not-Money, the further distinction between Good Money and Bad Money.

This distinction springs into importance when we reach the topic of government paper money.

Money it is by our definition. Is it good money or bad money? How does it perform the money function in the first instance—well or ill? What effects does the use of it produce upon industry, trade, and society?

For the present we shall consider government paper money at its best. We shall inquire what can be claimed for it, in its theoretical perfection, as an instrument for performing the money function.

The chief actual motive to the issue of paper money has been the difference in cost between such money and money of metal, or, as it is called, hard money. We shall come to see that the issue of paper money by government has been urged as a means of encouraging trade, of scaling down debts, and even, in these last days, of securing a better standard of deferred payments than either gold or silver; but in the great majority of all historical instances where paper money has been put forth, it has been put forth as Cheap Money. Paper Money costs nothing, or, rather, costs so little that, for purposes of economical reasoning, we may say it costs nothing. The cost of printing 1000 $1 bills is very small; the cost of printing 1000 $10 bills would be no greater. The first $1000 costs little; the $9000 additional costs nothing.

But if paper money costs nothing, why should one give any thing for it, or take it in exchange for either products or services? How can such money obtain currency in the first instance? How can it ever go so far as to become the general medium of exchange?

For an answer to these questions, let us revert to

our analysis of the money function. We saw that it is of the essence of monetary circulation that money is taken, not at all for what it is, but for what it will bring; that the receiver accepts it only that he may tender it to others in payment of debts or purchase of commodities. When a man is offered any thing to be consumed or enjoyed, its intrinsic properties become a necessary element in determining his mind whether to accept it or to retain the product, or the capability of service, in exchange for which it is offered. The sole consideration which affects a man's mind, in receiving or rejecting paper money, is the probability that it will be received in turn by others. Satisfied on this point, the question whether the money cost labor or not becomes irrelevant.

Can government, in fact, secure for its paper issues such currency, such free and general acceptance that they will do the money work, and hence become the money-thing?

On this point there can be no question. Governments have frequently issued paper money without adequate provision for its redemption in gold and silver, without such redemption, in fact, taking place, and sometimes without redemption being promised, and yet that paper money has circulated as rapidly as gold or silver would have done, has been taken as freely in exchange for commodities and services, and even, in some instances, has maintained an actual value equal to that of the amount of the precious metals to which it was nominally equivalent.

The paper money of Massachusetts for the greater part of the period 1690 to 1710; the paper money of Russia for the twenty years following 1768; the so-called Continental Currency of the American Revolution, for a year and more after the first emission; the paper money of Prussia for no inconsiderable period of time—all circulated freely, even without discount in specie.

But the appearance of a premium on gold and silver does not of necessity mark any falling off in the efficiency of government paper money as a medium of exchange. The fact that a $10 greenback, which was money, was worth, in 1878, but $9.50 in gold, which was not money, did not give the greenback any less facility of acceptance and rapidity of circulation. The value of money, like the value of any thing else, is determined by the demand for and the supply of it; but at its value, so determined, paper money may, even when at a great discount in gold, enjoy the freest acceptance and the most rapid circulation. If, for instance, in the month of July, 1864, when greenbacks were worth but thirty-five cents on the dollar, a debtor in Boston, Worcester, or Springfield had offered $350 in gold in payment of a debt of $1000, payable in lawful money, the creditor would have refused the gold and demanded the paper, and had the law given the debtor the option, the creditor would, in the great majority of cases, have consented to take something less than $1000 in greenbacks rather than be compelled to receive $350 in gold.

So far was the fact of a discount on the paper

money from diminishing the fulness and facility of its circulation, that there never was a time when the desire to come into possession of greenbacks was more ardent than when the premium on gold was at its height. The ultimate test whether an article does or does not perform the function of money is this: Do men, when they have products or services to dispose of, take this article in preference to seeking at the time those specific articles or services which they desire to consume or enjoy? Apply this test to the greenbacks of 1864. Did men who had products or services to dispose of try to avoid the intervention of the government paper money, and go about to make exchanges in kind with those who owned the commodities, or were capable of rendering the services which they desired for their own comfort or convenience? Was there so much as a sign of such a disposition on the part of the public?

It is not asserted that government issues never fall out of the category of money; that doubt and distrust never interfere with their currency. There can be no question that the Continental Currency of the American Revolution in great measure lost its character as money during the last miserable years of its existence; that men shunned taking it, so far as they could; that they gave pains and time to finding means to barter their products or services, in order to escape the losses incident to the acceptance of rapidly depreciating paper; that credit was more and more resorted to as a means, not of economizing, but of avoiding, the employment of this bad money.

It is in this way, mainly, and not through the ex-

tent of issues, that we explain the rapid fall in the purchase power of the Continental Currency during the eighteen or twenty months before it went wholly out of use, and disappeared finally from circulation.

The paper money of revolutionary France encountered the same obstacles to its currency, and met the same fate. On the other hand, the so-called greenbacks of the American Civil War never, from 1862 to the close of 1878, lost their currency in the smallest degree. At their price, they were always taken readily, eagerly. Men never sought to avoid their use by taking gold at a premium, or by resorting to barter or credit. This money may have wrought great mischiefs, morally, socially, and industrially ; but at least it maintained its currency as the general medium of exchange unimpaired from the moment when it was first issued, whether wisely or mistakenly, under the stress of war down to the moment when it was made equal in value to gold by the patience of the American people, and the courage and constancy of the present Secretary of the Treasury.

I have spoken of an increasing resort to barter, in order to avoid the use of paper money, whenever it becomes discredited. How does this consist with what has been said of the vital importance of the money function? I answer that, in the modern organization of industry, the use of money is absolutely essential to the conduct of business over a large part of the field of production. Here money must be used, no matter how bad the money of the time and country may be, if production is to go on at all.

When money gets to be too bad for this, when the mischiefs and losses it occasions become excessive, the mill and the factory are closed.

In regard to other portions of the industrial system, barter is not absolutely excluded by the conditions under which production and exchange are carried on. When resorted to, it amounts to a heavy tax on industry, but not a prohibitory tax. Especially in the payment of wages, and in their disbursement at the shops and stores where laborers are supplied with the necessaries of life, is it possible to introduce very extensively the system of "truck," so-called, or payment in kind. Even the abuses of the truck system may become more tolerable than the evils of depreciated and rapidly fluctuating paper.

Beyond the payment of wages, the hindrance to production and trade involved in the necessity of securing that "double coincidence of wants and of possessions," of which Professor Jevons writes, must be very great; yet the loss resulting therefrom, being definite, may be preferred to the irregular and uncertain losses to be apprehended from the use of distrusted money.

In such a temper of the public mind, many dealers will act in the spirit of Dean Swift's Drapier, when Ireland was threatened with an inundation of Wood's cheap copper coins.

"For my own part," wrote the doughty Drapier, "I am already resolved what to do. I have a pretty good shop of Irish stuffs and silks, and, instead of taking Mr. Wood's bad copper, I intend to truck

with my neighbors—the butchers, the bakers and brewers, and the rest—goods for goods."

There is still another class of exchange transactions, in respect to which barter or sales for money may be employed indifferently, so far as any actual loss industrially is concerned, and with but a slight increase of care and pains in effecting exchanges, the use of money being ordinarily resorted to from the force of habit, or from considerations of convenience which do not go to the real capabilities of production. Of course, in all such cases the slightest discredit * of the money of the country, be it debased coin or inconvertible paper, will drive the community to barter and to an extension of credit, to avoid the use of the discredited medium.

It is in this view of the subject that we get the full explanation of the rapid depreciation of paper money when once it begins to lose repute and to be avoided by those who have products or services to exchange. The increase of supply under the necessities of government, ever more and more urgent, or the clamors, ever louder and more impudent, of the debtor class, operates coincidently with a diminution of demand to cause the value of such money to tumble down by a succession of violent plunges till utter bankruptcy and repudiation result.

Thus far in our discussion of government paper money, we have assumed the paper in existence—in circulation. But how comes it that acceptance is

* As already explained, a premium on gold does not necessarily imply any discredit of circulating paper, but only an excess in quantity.

given at all to such issues? We have seen that men will make no scruple about receiving paper money themselves, if they believe that others will take it from them, in turn, whenever they wish to purchase goods or work; but whence that belief in the first instance? What is it that fairly starts paper money on its course?

There has been manifested a disposition on the part of those who may be called the orthodox political economists, to assume that the original acceptance, and the acquired habit of circulation, in the case of government issues, are due to the promise of payment which is usually contained upon the face. It is, in the view of these writers, the popular belief in the ultimate or even the speedy redemption of such paper, which gives it currency, at least in the first instance.

But though such paper money generally contains a promise of coin payment, either with or without a date fixed, and though the belief in the future redemption unquestionably contributes to the disposition to receive it, I see no reason to doubt that mere Fiat-Money—that is, paper declared by fiat or decree to be money, without any pledge or promise of conversion—could be brought into circulation without compulsion, being taken without objection in payment for goods or services sold or performed to the government. I see no reason, further, to doubt that, in a country where there was no bank paper money, and where the ordinary medium of exchange was felt to be cumbersome, the mere sense of convenience might cause such paper, if government stood

ready to issue it, to be sought for by the trading classes, on their own instance. I know nothing in the nature of the case, or in the history of paper money, which renders this improbable.

However that may be, government possesses two powerful levers for putting in motion, and keeping in motion, such money.

The first is through the tax power. Government may take advantage of the fact that its citizens are bound periodically to make contribution to the public treasury, to give currency to paper money.

"A prince," said Adam Smith, "may give a certain value to money by receiving it in taxes." Not only may a prince give a certain value to money by receiving it in taxes, but he may give almost any value to a certain amount of it.

If, for example, there were no bank paper money in the United States, and the government, having an annual revenue of $250,000,000, payable in gold, should announce that it would receive at its Treasury, as equivalent to $10 in gold, any one of a million pieces of paper, curiously tinted and engraved, having upon them no promise to pay gold or silver, or any mention of any sum of money, or any figures whatever, or even so much as a dollar mark, those pieces would at once acquire the value of $10 each. Men having large sums of money to receive at the Treasury, in payment for commodities or services, would probably ask to be paid in these pieces of paper, which they would sell to persons having taxes to pay, either for $10 each, in which case their advantage would have been found in not having to

carry about a great weight of metal, or, possibly, at a slight premium. With these pieces of paper the tax-payers would purchase at the Treasury their receipts for taxes due. The government would at once be able to pay the paper out again for services or supplies.

Soon it would come to pass that the paper would not merely go from the Treasury to the government creditor, from the government creditor to the tax-payer, and from the tax-payer to the tax-collector, but would take a wider range. Instead of circulating between the Treasury and its immediate creditors and debtors, they would go, perhaps, through twenty or fifty hands before coming back to the Treasury.

The one million pieces of paper, containing no promise to pay gold or silver, without a letter or figure on them, would constitute a circulating mass of $10,000,000 of paper money.

I have mentioned the sum of $10,000,000 simply because, with a revenue of $250,000,000, there could be no question that such an amount of paper would maintain itself at par. Whether the amount which could be thus circulated would reach $20,000,000 or $30,000,000 or $40,000,000, is not a question we need stop to discuss.

But government has another and still more powerful lever for putting into circulation, and keeping in circulation, paper money. This is through its power of declaring legal tender. The right to frame special contracts by which debts shall be made payable in any article mutually agreed upon between the parties, is generally respected by all but the most

despotic governments, but the right is one not likely ever to be much used. The great bulk of debts will always be paid in that which the law declares to be legal tender in default of any prior agreement. Alike the propensities of the human mind and the conditions of trade tend to discourage special contracts, and to bring all the obligations of debtors, all the claims of creditors, to the standard established by law. The right of naming the substance in which payment shall be made, like the right of a man to speak another language than that of the community in which he resides, is a right soon disused if not forgotten.

The body of indebtedness existing at any given time in a modern community is very large. The monthly and daily maturing of these obligations will of itself create a use, and hence an economical demand, for that in which they can be discharged. Passing thus from debtor to creditor, this will soon acquire a circulation in current payments—in purchases, *i.e.*, where the equivalent is given as soon as possession is taken of the article bought, just as we saw that paper receivable for taxes and government dues soon comes naturally into use as the medium of exchange between private citizens.

Most intimately is the faculty of paying debts, on definite terms, connected with the freedom and facility of circulation in current purchases.

Nothing can in these days become to any great extent, or long remain to any extent, money, which has not its debt paying power clearly defined by law. In order to do business on the scale and of the com-

plexity which characterize modern industry, one must be able to know precisely what that which he from day to day receives in exchange for his products will be worth in meeting his maturing obligations for labor and materials.

We have seen that paper money issued by government may perform—for a time, at least, perform perfectly—the function of a Medium of Exchange, men taking it freely and gladly for what they have to sell, in the assurance that others will in turn take it from them whenever and wherever they may wish to buy. Can such issues also perform the function commonly known as Measuring Values—*i. e.*, serve as the Value Denominator, or Common Denominator in Exchange?

It is here that the economists of the orthodox school appear to me most deeply in fault. There is among them an almost universal consent that paper money does not and can not "measure values" like money of gold and silver. Even those who admit that such paper money constitutes a medium of exchange, in the fullest sense of that term, declare that at this point its office as money terminates. There is something here which gold and silver do for trade and production which government paper, inconvertible money, or fiat-money, can not.

In our second chapter we found that this notion that money measures values rests upon an erroneous conception, which has in turn been protected from discovery and exposure by a vicious terminology, the expression, measure of values, being in the highest degree misleading.

We found that it is not correct to say, with Professor Price, that "the cost price of the goods is compared with the cost price of the gold." The cost price of gold is not generally known by those who exchange goods, and it is not necessary that it should be; for if gold had no cost price, if it cost nothing at all, but were an object of universal demand and were limited in supply, the effort of every producer to bring to market that commodity which would command the most gold for a given cost of production, the effort of every dealer in the market to sell that portion of his stock which could be most cheaply replaced by means of the gold received—these efforts, spontaneous and instinctive, of every dealer and of every producer, would result in ranging all commodities one above another on a scale of prices expressed in terms of gold, which would thus become the common denominator in exchange. And this is all that is involved in the function so unfortunately named. In other words, the cost price of the goods is not compared with the cost price of the gold; but the cost price of one kind of goods is compared with the cost price of each and every other kind; and, as a result, those goods which it would cost much to replace will (if the demand for them holds out) exchange for much of the gold, and those which it would cost little to replace will (whether the demand for them holds out or not) exchange for little of the gold. Thus commodities which at first may have exchanged for equal amounts of gold become differentiated, and the actual operation of exchanging them for the general

medium of exchange yields the result of a price-current.

After looking at this subject from every side, I am at a loss to conceive of a single argument which can be advanced to support the assertion of the economists that paper money can not perform this function of measuring values, so-called. On the contrary, it appears to me clear, beyond a doubt, that, just so long and just so far as paper money obtains and retains currency as the popular medium of exchange, so far and so long it does and must act as the value denominator, or common denominator in exchange. And I see no reason to believe that, in this single respect, hard money, so-called, possesses any advantage over issues of any other form or substance, which secure the degree of general acceptance which is necessary to constitute them money. The object of a value-denominator is to give us a price-current—*i.e.*, to secure a statement of the respective values of all commodities in terms of the one article—money.

This purpose will be answered equally well whether the exchanges are of goods for hard money, or of goods for soft money, since, so long as soft money is money at all, every producer will wish to bring to market those commodities which will obtain the largest amount of such money for the least exertion and sacrifice on his part. The price current will be equally valid, equally intelligible, equally comprehensive, whether expressed in paper dollars, or silver dollars of 412½ grains, or gold dollars of 25·8 grains standard.

We have contemplated government paper money as the popular medium of exchange, and as performing incidentally the function of a value denominator, or common denominator in exchange.

We do not ask whether such paper money can become the Standard of Deferred Payments, usually called the Standard of Value, since it is not questioned that it does serve in this capacity; but it is important to ask how such money performs this office, whether well or ill; with what effects on trade, industry, and society.

And, in the first place, we note that whatever may have been the experience of the past, and whatever it may be reasonable to expect in the future, it is conceivable that paper money might be made an even better standard than either gold or silver, or than gold and silver under the bimetallic system. We saw how greatly the precious metals are superior in steadiness of value, from year to year, to every other equally important class of productions, owing to their slow consumption in use or by accident. We saw, however, that, in spite of this, gold and silver do yet, over long periods, undergo great changes of value, and become in a high degree deceptive as a measure of the obligation of the debtor, of the claim of the creditor. Thus we saw that Professor Jevons estimates that the value of gold fell, between 1789 and 1809, forty-six per cent, that from 1809 to 1849 it rose one hundred and forty-five per cent, while in twenty years after 1849 it fell again at least twenty per cent.

Where leases and annuities are given for terms of

years, for life, or for the lives of two or more persons, and even in perpetuity, and where vast public loans are contracted for long and even indefinite periods, a standard which is liable thus to fluctuate must produce great hardship, now to one and now to the other party to all such contracts, and work serious mischief at times to production and trade.

It is claimed that it would be possible so to regulate the issues of government paper money that not only should such wide reaching fluctuations not occur, but that, with careful observation of prices, very little, if any, variation in its value should take place.

Whatever may be true of the latter part of this claim, the former incontestably is true. There can be no doubt that, if the matter had depended on the will of a thoroughly informed and disinterested person, the diminution in the stock of money between 1809 and 1849 would not have been allowed to occur, while it is probable that the increase of supply after 1849 would have been moderated in degree, and protracted over a much longer period.

Again, it is claimed, the control and the profits of paper money issue fairly belong to government. It is of the nature of money, it is said, that its use is universal, and that any abuse of issue inevitably affects the fortunes of every person in the community. Individuals can not protect themselves against bad money; therefore the State should see to it that they have good money. And, on the other hand, if a profit is to be made by the issue, that profit should go to the public treasury. It belongs to no man, to

no body of men, to no corporation; but to the State. The people alone, the mass of the people, can give that currency to gold or silver or paper which is essential to constitute it money. The people, therefore, should derive all the benefits of that circulation, whatever those benefits may be. In this view, bank paper money is issued in injury of the rights of the public, unless, indeed, the privilege of issue has been obtained by the banks on the payment of an adequate consideration. It must be confessed that this plea is much favored by a strong analogy between the issue of paper money and the issue of coin. M. Courcelle-Seneuil, indeed, denies that royal prerogative has any relation to the emission of notes payable at sight and to the bearer; but such is not the view of many economists equally orthodox and equally strict in their advocacy of sound money.

"We ought," says Professor Jevons, "to talk of coining notes as John Law did, for though the design is impressed upon paper, instead of metal, the function of the note is exactly the same as that of a representative token. As to right to issue promises, it no more exists than the right to establish private mints. As almost every one has long agreed to place the coinage in the hands of the executive government, so I believe that the issue of paper representative money should continue to be practically in the hands of the government, or its agents acting under the strictest legislative control."

What have we thus far obtained?

1st. We have seen that paper money, a money of mere convention, having no "intrinsic value," in the sense in which that phrase is commonly used,

may become the general medium of exchange in any community, being freely received by all who have goods to sell, in the confidence that it will in due course be received by others.

2d. We have seen that, in the fact of a general desire on the part of producers and dealers for one article of uniform quality, susceptible of easy and exact division, which is at the same time limited in supply, we have all requirements of a common denominator in exchange. This also a money of mere convention is competent to effect.

3d. Such money, so long as its popular acceptance remains undiminished, performs the office of a standard of deferred payments well or ill, according as its amount is regulated.

We saw that this is the weak point of metallic money. It is conceivable that the amount of paper money should be so regulated as at least to avoid the wide-reaching fluctuations of value to which gold and silver have through all time been liable.

4th. We may admit that, if paper money can advantageously be substituted for hard-money, money of so-called intrinsic value, the saving effected in the first cost of the circulating medium fairly belongs to the people at large, and not to any individual or collection of individuals; that the engrossment by banks of the profits of such a substitution, without an adequate consideration therefor, either by direct contribution to the treasury or in the way of services rendered to the public, would be a wrong of which complaint might justly be made.

We may further admit that, if government has the

right to regulate or to monopolize the issue of the coin, it has the right to regulate or monopolize the issue of circulating notes which take the place of coin and become the money of the people; and that, if it is the duty of government to see to it that the coined money of the country is not made the instrument of fraud and oppression, equally is it the duty of government to see to it that the printed money is not so perverted. So much, I think, we are bound in fairness to concede to those who favor a paper money resting on the authority of government, receivable for taxes and legal tender for debts. In not frankly conceding this, the friends of "honest money" have, in my opinion, hurt their cause. To treat the advocate of fiat-money as an outlaw, with whom no terms are to be kept, is neither just nor politic. Let us, then, inquire candidly respecting this scheme. And, first, what is the gain to the country to be effected by the substitution of paper money for gold and silver?

We leave out of view, for the present, the ultimate influence of paper money issues, whether for good or evil, on trade and production, which forms the subject of our next chapter, and consider here only the immediate saving or gain of such a substitution.

Is this measured by the nominal value of the paper so issued? If the United States Government had in 1864 put out $1,000,000,000 of greenbacks, and got them into circulation, and kept them there, would that have shown that the United States, as a whole, were better off by that amount?

The gain to be effected by the substitution of paper for gold is measured by the amount, not of the former, but of the latter. If the money of the country had previously been $300,000,000, the saving by the issue of the paper (always supposing no injury to trade or production to result) would have been $300,000,000. And as a penny saved is a penny earned, we might say that this was a gain to that amount. The United States might send the gold abroad, buy with it railroad iron, machinery, and ships, and be so much the better off in consequence. If you choose to call that the production of wealth, the issue of the paper money produced wealth to that extent. For the sake of argument, let us call it the production of wealth.

What of the remaining $700,000,000 of paper issued?

The first $300,000,000 enabled the country to dispense with a costly instrument of trade formerly in use. With what thing previously necessary to life or comfort does the $700,000,000 of additional paper enable the individual members of the community to dispense? What hitherto felt want of society is now relieved? What virtue has all this volume of paper to dig from the earth the raw materials of production, or fashion them to man's use, or transport them to market?

No decree of government, no matter how despotic, no act of Parliament or of Congress, no fiat but that of omnipotence, can create any object which shall satisfy the physical necessities of a single human being.

But government, as the guardian of property and the executor of contracts, can take wealth from one man and give it to another. It may, through its organs, the courts, say: This farm which Smith has always believed to be his belongs to Jones. Jones shall have it, to hold and enjoy, and his children after him. There has been no production of wealth here; only a transfer, rightful or wrongful, as the case may be. Jones is richer, it is true, but Smith is poorer by just as much. And if the transfer was wrongful; if it rankles in Smith's breast as a cruel injury, which discourages his industry and blights his hopes for himself and his children; if it is generally regarded by the neighbors as done from partiality or corruption, so that other men begin to look at their farms with fear and to regard themselves as the possible subjects of spoliation—then not only is the community no richer for Jones's acquisition of a farm, but it is vastly the poorer therefor.

Government may, by the issue of paper money beyond the limits of the previous circulation of gold and silver, cause a great transfer of property throughout the community. It may make it much easier for many persons to live who once had a hard time of it, and it may make many persons rich very suddenly. These are the Joneses, a family that, in flush times, attract a large share of the popular attention, and are thought by some to be the nation itself. The Smiths are only recognized when the crash comes, and the "hard times" bring about pau-

perism, suffering, and strikes. They outnumber the Joneses ten to one.

But is not this paper money worth any thing? I buy food with it, clothing with it. How dare you say it constitutes no addition to the wealth of the country?

Suppose the government says to Robinson, You owe Brown for twenty bushels of wheat; go give him this paper in discharge of the debt. Is not the paper worth something? Why, yes; it is worth to Robinson, at the time, twenty bushels of wheat. Now, if you say to me that the paper is worth twenty bushels of wheat, because it is worth that to Robinson, a debtor, then I say to you that the jimmies with which the safes of the Manhattan Bank were broken open last November were worth $3,000,000. They were a means of obtaining that sum. They effected a transfer of property to that amount. They were worth $3,000,000—to the burglars.

But you ask, Is not the piece of paper worth any thing to Brown? Why, yes, probably. If he were to go right off to the market, he might buy back with it fifteen of his bushels of wheat, or ten, or five; or, if the paper mills and the printing press had been running at the business long enough, he might get sixteen quarts, which would represent the rate at which the fiat-money of the successful American Revolution was redeemed *; or he might get a pint

* 40 : 1. In other paper, to be sure, which was soon worth only 12½ cents on the dollar.

of his own wheat, which would represent the rate at which the fiat-money of the unsuccessful Southern Rebellion was finally allowed, in settlement of accounts, by the courts of Georgia. But this is, in part, an anticipation. The point I wish here to make clear is that the measure of the possible saving, the possible gain, through the substitution of paper money for gold and silver, is to be found, not in the amount of the paper put into circulation, but in that of the gold and silver displaced.

Again, we are called on to notice that by substituting a money which derives its currency from the authority of government for the money of the commercial world, a country loses, in the very act of doing so, all the benefit of the automatic distribution of money, through the agency of price, over the commercial world.

We have seen that any excess in the money of a country above its distributive share of the money of the world makes that country a good country to sell to, because prices there are high, and a bad country to buy from, for the same reason; and that, by consequence, imports being increased and merchandise exports diminished, the excess of money which caused the temporary disturbance of prices passes easily and quickly off in settlement of the balance. In the same way, any deficiency is rapidly and safely supplied, without any man's having care of the same or even knowing of it, through the natural operations of trade.

The amount of paper money in a country is not to be regulated in this way. A very limited foreign

circulation is sometimes allowed in a few great cities, among small classes, as bankers and large merchants, to the notes of great specie paying banks of universal reputation, like the Bank of England or the Bank of France. But we know nothing of any ex-territorial circulation of money not convertible on demand into coin, deriving its circulation from the authority of government alone. And we have no reason to suppose that such will be the case in any future for which statesmen and economists should now feel called on to provide. Hence the regulation of such a paper money is not automatic. It has all got to be done by hand. This money must be pumped in whenever it is decided that the country needs more, and pumped out whenever it is decided that the country needs less. The paper has no outlet in foreign trade.

Secondly, we have to note that such money, being released from all natural conditions of production, and being thus subject to purely arbitrary regulation as to amount, becomes liable to abuses in a degree far transcending those which are possible under a metallic circulation. We have seen that, while the production of gold and silver is subject to great change, it yet requires a term of years, often very considerable, greatly to influence the existing stock.

Inconvertible paper money, however, may be increased indefinitely at will. It costs twice as much labor to raise two thousand ounces of silver from the mine as to raise one thousand ounces. It costs no more to engrave and print a thousand two-dollar

or ten-dollar bills than a thousand one-dollar bills. The possibilities of evil, then, which lie in the abuse of the power of issuing such money, are almost indefinitely greater than those which inhere in a metallic circulation.

In our next chapter we shall inquire how far it is reasonable to expect, and how far it is politically wise to found the industrial and commercial system upon the expectation, that the power of issuing paper money, not convertible on demand into coin, but depending for its currency on the authority of government, will be prudently exercised; and, in the failure of a prudent exercise of this power, what are the consequences to society, industry, and trade, of paper money inflation.

CHAPTER IX.

THE ABUSES OF GOVERNMENT PAPER MONEY.

WE have inquired into the nature of Paper Money issued by government and circulating by authority. We have seen how far such money is capable of performing the several money functions.

Thus far we have contemplated paper money in the most favorable light. Its unfortunate liabilities, if any such exist, have not been in view. Our question has been, what, taken at its best, could such money do?

I believe that nothing more can intelligently and honestly be claimed for paper money than has been conceded to it.

But as money, of whatever kind, is both an economical and a political institution, and as the advocates of government paper especially affect to call it "political money," we are bound, as in the case of every proposed political institution, to consider its liabilities to abuse or perversion; to inquire whether its successful working depends upon an exercise of prudence, virtue, and self-control which are within, or are beyond, what is reasonably and fairly to be expected of men in masses, and of rulers and legislators as we find them. We are bound carefully to

weigh the consequences of the possible perversion or abuse of this agency, against the advantages to be derived from its legitimate application and employment. The era of *a priori* politics has passed away. Men no longer take even the trouble to discuss political schemes which assume an impossible virtue, or which disregard the actual conditions under which they could alone be set to work.

Paper money, then, as a political institution or arrangement, must submit to this test. The man who advocates government issues, without being prepared to show reasonable ground for believing that they will not be so abused as to accomplish more of evil than of benefit, is not worthy to be listened to.

On the other hand, it must be said that the mere fact that paper money has been abused in a certain instance, or number of instances, in the past, is not conclusive against its adoption under different conditions and circumstances. We have no right to point to experience as decisive against any scheme, without recognizing the consideration that the very experience recited may have supplied the conditions of subsequent success. The man is not candid who is perpetually harping, in discussions of paper money, upon the experience of France from 1789 to 1795, when the "assignats" mounted up to 45,000,000,000 frs., and their value sank to nothing, but never mentions the experience of the same country between 1871 and 1877, when the premium on gold, even in the stress of the great war with Germany, never was allowed to exceed one and a half per cent, and for most of the period was kept below

one half per cent; who never tires of referring to the disastrous fate of the "Continental Currency," issued by a revolutionary government that had not the power to levy a dollar of taxes, but never alludes to the loyal observance of the pledge given by the act of June 30th, 1864, that the greenbacks should not exceed $400,000,000.

We come now to inquire what are the liabilities of abuse, if any, to which this economical agency, government paper money, is subject; what is the degree of probability that the issues will be so regulated as to accomplish the end sought of supplying a cheaper and an equally satisfactory, or a more satisfactory, medium of exchange, value denominator, and standard of deferred payments.

The single liability to abuse, in the case of paper money of this character, is found in the tendency to overissue. To this end the fiscal exigencies of government are likely to combine with a popular passion for a money of diminishing value.

The first of the consequences of a failure properly to regulate the volume of an inconvertible paper money, which we are called to contemplate, is not a fiercely rapid depreciation due to extravagant emissions, but that disturbance of international exchanges which may be consistent with the highest moderation and prudence on the part of the issuers. We saw in the last chapter that in the adoption of this kind of money a country loses, by the very nature of the case, all the advantages of an automatic regulation of the money supply through the natural movements of trade.

Paper money finds no outlet in foreign trade. It cannot be exported. Hence its regulation becomes purely mechanical. The chances that even the wisest and most disinterested issuer could maintain the volume of paper money in circulation, under the incessant movements of production and trade, always at exactly the point at which metallic money would have stood, must be seen to be very small. The excess may not be considerable; but, if not in one season, then in the next; if not one year, then in another, there is likely to be more of such money in circulation than constitutes that country's distributive share of the money of the world.

If, however, money of any kind circulating in a community and exchanged against commodities becomes in excess, its purchasing power declines. In the case of inconvertible paper money the effect of this must be to establish a premium on that metallic money in which alone foreign balances can be paid.

This, to one who is not familiar with the operations of international exchanges, may not seem a very formidable matter; but if we can trust those who are, from long experience and wide connections, best qualified to judge, the money of a commercial community cannot depart in any degree from the money in which international balances are discharged, without creating obstructions and exciting apprehensions to which modern trade, with its highly developed and acutely sensitive organization, will not subject itself, or will do so only on the payment of a heavy fine by the society so offending.

We have already noted the wonderful sagacity with which the directors of the Bank of France prevented any considerable discount upon their notes, when exchanged for gold, during the period 1871–'77. Yet slight as this discount was, almost vanishing at a favorable turn of trade, it was not without momentous consequences to the commerce of that country. In his valuable work, "Lombard Street," the late Mr. Walter Bagehot remarks:

"The note of the Bank of France has not, indeed, been depreciated enough to disorder ordinary transactions. But any depreciation, however small, even the liability to depreciation, without its reality, is enough to disorder exchange transactions. They are calculated to such an extent of fineness, that the change of a decimal may be fatal, and may turn a profit into a loss. Accordingly London has become the sole great settling house of exchange transactions in Europe, instead of being, as formerly, one of two."

The loss of the many facilities—we might say franchises—which the trade of a country derives from being a centre of exchange operations, must be reckoned as a heavy drawback on all the advantages which could, at the best, be anticipated from a paper money having no cost of production, and hence no international acceptance.

But, in addition to this loss of a par-of-exchange, which we may count as a practically certain result of the issue of inconvertible paper money, we have also to consider its liability to extensive overissue, with an altogether new series of consequences to trade, industry, and society.

This liability arises from the fact that, where the

principle of inconvertible paper has once been adopted, there are always two powerful motives tending to produce expansion, with no adequate restraining force in operation. When once the traditional fear of paper money is worn off, the only safeguard against overissue is found in far-reaching, conscientious, disinterested, courageous statesmanship. All the selfish interests that make themselves publicly felt, all the passions of the hour and the appetites that clamor for indulgence, favor expenditure. There is a steady pressure on that side, which now and then rises to furious impulses against the barrier which withstands inflation.

How far is it wise for any moderate advantage to call into being forces which are only to be kept from becoming in the highest degree destructive by being constantly watched and unremittingly opposed? Is it good policy, is it consistent with ordinary common-sense, to invoke, for the accomplishment of a definite and at the best a not considerable good, agencies respecting which it is confessed that the least relaxation of vigilance, a momentary indulgence of human weakness, one false motion, will lead to serious, perhaps irreparable, disaster?

Nor does the liability to overissue diminish with the lapse of time. The issue of government paper money in moderation does not form a political habit which becomes a security against abuse. On the contrary, the longer the régime of inconvertible paper money lasts, the greater the danger. The popular mind becomes accustomed to the sight and the thought of it; the fear of it is worn off; a genera-

tion comes upon the stage that has not known metallic money or bank money convertible into coin on demand.

In 1690 the Colony of Massachusetts issued paper money to pay the charges of the disastrous expedition of Sir William Phipps against the French in Canada. At first an overissue took place, and depreciation set in; but by prompt action in calling in and redeeming the excess, the notes were brought to par, and so remained for nearly twenty years. In 1710, however, when the second expedition against Canada took place, the Colony fell apparently without a struggle into the gulf of irredeemable paper; the money of Massachusetts became a weltering chaos; trade was brought into the utmost confusion, production to the utmost weakness, till, in 1749, the paper was, under the energetic leadership of Hutchinson, bought up at 11:1 in silver, and burned.

Russia first issued paper money in 1768, and for a time kept her notes at par, only to plunge twenty years after into an abyss of discredit and depreciation, from which her trade and her finances have not to this day emerged.

Twice since the revolution of 1848, viz., in 1859 and 1866, has Austria stood on the very verge of specie payments, yet been thrown backward into insolvency by the imminence of war.

The danger of overissue never ceases to threaten inconvertible paper money. The path winds ever along the edge of a precipice. Vigilance cannot for a moment be relaxed. The prudence and self-restraint

of years count for nothing against any new onset of popular passion, or in the face of a sudden exigency of government.

It has been said that the danger of overissue never ceases to menace a community which receives such money into circulation. It is also true that overissue, once accomplished in any appreciable degree, tends strongly to break bounds and to become extravagant. An appetite for further issues is engendered both in the treasury and in the people, and that appetite acquires violence by indulgence.

The fact is incontestable. The reason is obvious. To metallic money the formula of supply and demand applies. Demand creates supply, supply satisfies demand. A deficiency of money gives each particle an increased purchasing power, which constitutes a premium on importation. An excess of money reduces the purchasing power of each and every part of the stock, till it becomes the cheapest article in possession with which to buy goods or pay debts, and consequently exportation takes place. When, however, paper money is in excess, prices rise, and may rise indefinitely in terms of paper without suffering any correction from international commerce. However far such issues proceed, supply never satisfies demand. Money is never more plenty, for the purposes of exchange, with the greater amount than with the smaller. The more there is, the higher are prices, and that is the end of it.

No, that is not the end of it. Money is less abundant with the larger than with the smaller amount.

Not only does supply not satisfy demand, but rising prices excite speculation. "Forestalling the market" and "engrossing the stock" at once begin, for the purposes of taking advantage of the expected rise; and thereby money is made continually scarcer the more voluminous the issues.

It has been said that an appetite for further emissions is engendered both in the treasury and in the people. And, first, of the treasury.

The fiscal exigencies of government constitute the most formidable of the two dangers which menace the integrity of a paper money issue.

"Real money," said Edmund Burke, "can hardly ever multiply too much in any country, because it will always, as it increases, be a certain sign of the increase of trade, of which it is the measure, and consequently of the soundness and vigor of the whole body. But this paper money may and does increase, without any increase of trade, nay, often when trade greatly declines, for it is not the measure of the trade of a nation, but of the necessity of its government; and it is absurd, and must be ruinous, that the same cause which naturally exhausts the wealth of a nation should likewise be the only productive cause of money."

"In great and trying emergencies," wrote Hamilton, "there is almost a moral certainty of its becoming mischievous. The stamping of paper is an operation so much easier than the levying of taxes, that a government in the practice of paper emissions would rarely fail to indulge itself too far in the employment of this resource."

The two most remarkable examples of continence in the issue of irredeemable paper are those afforded by the Bank of England during the period of the so-called Restriction—1797 to 1819—and by

the Bank of France in 1848, and again in 1871. No one can question that the prudence and self-restraint here shown were due mainly to the fact that in neither case did the profit of the issues inure directly to the government.

In all free governments, or governments much subject to popular impulse, a second danger of overissue arises from the appetite which is engendered in the masses of the people for further emissions for the purpose of scaling down debts, "making trade good," and enabling works of construction and extensive public improvements to be undertaken, for which taxation could not provide the funds.

The intrusion of the debtor class into the legislature, with their impudent demands for issues to scale down debts, is a familiar spectacle. Even the sterling virtue of early New England did not save those primitive communities from the fiercest impulses of political dishonesty when once the thirst for paper money had been aroused. "Parties," says Douglass, "were no longer Whigs and Tories; but creditors and debtors. Governors were elected and turned out as the different interests happened to prevail."

"New claimants," says Professor Sumner, "who desired to come under this shower of wealth, clamored for new banks,* on the ground of justice and equality. All who had received loans joined as a compact body in favor of further issues. All new issues to others depreciated the currency and enabled them to pay back more easily."

The same feature appeared early in the history of

* For this use of the term, see p. 267.

the French Revolutionary paper money. We have seen it in our own country during the past twelve years, an active, aggressive, vehement, virulent force, engendered by the desire of paying debts, wiping off scores, raising mortgages, in depreciated money.

Paying debts is always a disagreeable necessity. For one man who would steal to acquire property in the first instance, a score will do that which is no better than stealing, in order to retain property which has passed into their hands, and which they have come to look upon as theirs, though not paid for.

We have heretofore discussed the question whether a reduction of the weight of debts from age to age, by a gradual progressive depreciation of metallic money, might not relieve current industry in some measure from burdens derived from the past, to the advantage of society as a whole, and we have seen reason to believe that this is the case. But here the injury to the creditor class is not the work of man but of God, purely *ictus dei*, like the death of a miserly bad man, which brings his property into the hands of a generous, philanthropic, public-spirited heir, at which change of ownership all men may properly rejoice. The aspect of the case would be totally different if the heir had procured the death of the miser in order to get possession of the property. No plea of public spirit or benevolence in the disposition of the wealth could compensate society for the deep and damning wrong through which it changed owners. A reduction of

the burden of obligations, accomplished by the act of a legislature, in the issue of paper for the purpose of enabling the debtor to pay in a depreciated money, has no virtue in it to promote industry or encourage enterprise. It carries with it the sting of injustice and fraud. It draws after it retributive agencies which curse the people and the age. Leaving all considerations of honor or duty out of view, and having reference exclusively to the economical interests of society, we may confidently say that the man who advocates the scaling down of debts by act of government for the sake of encouraging trade and production shows himself so ignorant of history as to be a wholly unfit adviser in respect to the present and the future.

It was a tradition of merry England respecting the gentle outlaw, Robin Hood, that he lightened the purses of noble and priest to distribute the wealth thus obtained in alms to the friendless and distressed. This courteous and charitable robbery may have not been without excuse, may even have had a legitimate place in a political and social system where violent wrongs were daily committed without redress; but the introduction into modern industrial society of such philanthropic methods of compensating the inequalities of fortune, instead of promoting production and securing a better distribution of wealth, will speedily result in reducing all ranks and classes to the same dead level of poverty and wretchedness.

In the words of my honored father:

"There is hardly any climate or soil so unpropitious that man

will not struggle on, earning his livelihood with much endurance, and laying something by for the future. There is hardly any government so rigorous as wholly to suppress the energy of its people. There is hardly any taxation so exhaustive that something still cannot be got out of nature for man. But if foul play or legal fraud comes between labor or capital and its reward, the very life of industry ceases. The spring of work is broken. Its admirable parts and cunning mechanism are useless, motionless. Labor is the first to suffer. Its wants are instant, immediate, vital. Capital has the privilege of Leviathan. It can dive down to the depths and give up breathing for a while. If labor goes under, it dies."

Wholly in addition to the incentive to paper money inflation found in the desire cheaply to pay debts and clear off scores, is the impulse arising out of the craving for a factitious activity of trade and production, bringing with it greater ease in realizing the profits of business.

We have seen that there is a certain unmistakable influence in an increase of the money supply to give a fillip to the zeal and enterprise of the business class, which may have the effect to keep them more keenly on the watch for industrial opportunities, to make them more prompt in seizing advantages, and more courageous in assuming the responsibilities of production.

But we have also seen that in no department of human effort is the line between a just self-confidence and an overweening presumption so quickly overstepped as in the pursuit of wealth. Nowhere are the balance of the judgment and the temper of success so easily disturbed. Under the illusions which money has the power to create within the mind, the

desire of well-being, which is the spring of all industrial activity, passes with fatal facility into the greed of gain, which is often in the highest degree destructive of true self-interest.

The same causes which arouse courage and confidence, and thus bring into full play all the powers of men, tend, if carried but a little further, to create recklessness and presumption, inducing great waste of resources, a wide misdirection of energy, and a spasmodic activity which is incompatible with the largest permanent results.

Beyond the mere fillip to enterprise, the stimulus administered to the zeal of the employing class, an increase of the money supply can exert no productive power whatever. Its whole further effect must be to change the ownership of wealth. This cannot be carried far without causing great individual hardship, and giving rise to distinct evils within the industrial body by exciting to excessive speculation, personal extravagance, and reckless adventure.

Now, I ask, where in the history of countries admitting to circulation inconvertible government paper money, do we find evidence of a steadily prevailing disposition, on the part of the advocates or apologists of such money, to confine the issues within limits which a political economist could approve?

Not to take instances from the history of countries less favored, had the volume of the greenback circulation been left to the determination of the greenback party alone, in what year since 1868 would the issues have been kept within bounds?

The economist, while in candor admitting much in respect to the theoretical possibilities of paper money inconvertible into coin, is compelled to say that financial history teaches that those who want such money invariably want a great deal more of it than, on any rational view of the case, could be good for the community.

Mr. Thomas Attwood, who, with his eloquent brother Matthias, long stood at the head of the so-called Birmingham school, or inflation party of England, in his testimony before the committee of 1832 said:

"As a general principle I think unquestionably that so long as any number of industrious honest workmen in the kingdom are out of employment, supposing such deficiency of employment to be not local but general, I should think it the duty and certainly the interest of government, to continue the depreciation of the currency until full employment is obtained and general prosperity." *

Moreover, experience shows that the appetite for such a stimulation of the industrial body, once formed, is almost certain to acquire a progressive force which will sooner or later break all bounds, and become dangerous to the community, so that it has to be fought with for the public safety, as men turn out to fight fire, when it has got out of the furnace

* Hereupon Mr. Mill remarks: "Possessing the power of calling all the laborers of Great Britain into high wages and full employment, by no more complicated a piece of machinery than an engraver's plate, a man would be much to blame if it failed for want of going far enough. Mr. Attwood, accordingly, is for increasing the issues until with his paper loaves and fishes he has fed the whole multitude, so that not a creature goes away hungry."

and its iron pipes into the wood-work and frame of their dwellings.

President White remarks as follows respecting the second issue of assignats in revolutionary France:

> "In this comparative ease of a new issue is seen the action of a law in finance as certain as the action of a similar law in natural philosophy. If a natural body be allowed to fall from a height, in obedience to gravitation, its velocity is accelerated, by a well-known law in physics, in a constantly increasing ratio. So in issues of irredeemable currency, in obedience to the theories or interests of a legislative body, or of the people at large, there is a natural law of rapidly increasing issue and depreciation. Nearly all Frenchmen now became desperate optimists, declaring that inflation is prosperity. Throughout France there came temporary good feeling. The nation was becoming fairly inebriated with paper money. The good feeling was that of a drunkard after his draught; and it is to be noted as a simple historical fact, corresponding to a physiological fact, that as the draughts of paper money came faster, the periods of succeeding good feeling grew shorter."

I have no wish to retract any one of the admissions made in favor of government paper money, but I ask, is it politically wise to receive into circulation a money which can never escape from the danger of overissue, under impulses from interests and passions such as have been here feebly portrayed? Even granting that the attacks thus made upon public and private faith, and on the very life of industry, are every time foiled and beaten off by a rally of the honesty and good sense of the nation, what must be the influence upon production and trade of such continual menace? Has there been a

year since 1868 when the industrial interests of this country have not perceptibly flinched before the threat of inflation? Has Congress, since the volume of money became a political issue, ever opened in December without an evident dread on the part of the mercantile and manufacturing community, lest unwise or fanatical legislation should follow?

Can any one affect to believe that such a condition as has been described is wholesome for trade and production? That it tends to a fuller employment of labor and a more active use of capital? Is not the worst certainty under a metallic standard more endurable than the uncertainty that must ever attend the use of money having no cost of production, and hence released from all natural conditions of supply and made dependent on the pleasure of a governing body which may be weak; which may, under such a stress of temptation, become wicked; which is never likely to be composed, in its majority, of men versed in economical principles or familiar with statistical investigations; which is certain to be profoundly moved by dangerous impulses from outside and by party passions and sectional jealousies within?

The effects upon trade, industry, and society of a paper-money inflation have been so much dwelt upon in public discussions of the subject, and have been so fully illustrated in our own national history, that they need not occupy much of our space.

Trade instantly and necessarily becomes highly speculative. With prices rising the dealer knows that the more he engrosses the stock in the market, and the longer he holds it, the greater will be his

profit. So long as the inflation progresses he cannot lose; he must gain. No matter how badly he does his part, how unwisely he buys, the margin of gain afforded by rising prices covers all blundering and folly. Under such an immunity the business of the country is more and more done by men who are incompetent. Dealers who had before existed by sufferance, who had been content to hang on the skirts of the trade, and do a small business in a mean way, now become great operators, and run ahead of respectable and conservative houses. The only risk now is in being behindhand; the only folly now is prudence.* Frugality, industry, discretion, all at once become slow, stupid, and out of fashion. Dash, cheek, pluck, nerve, open the way to success. Any virtue that has two syllables for its name is behind the age.

Not only is such a pernicious influence exerted upon the existing commercial body; but new men crowd themselves into stores, shops, and stands at every point where a chance to buy and sell any thing can be conceived to exist. Between 1860 and 1870, while the increase in the population of the United States was but twenty-two and a half per cent, the increase in the classes engaged in trade and transportation was not less than forty-four per cent.

In ordinary times severe and searching competition keeps out or keeps down the ignorant and inefficient. It requires brains no less than capital, even

* "Prudence ceased to be a virtue," says Dr. Ramsey, writing of the paper-money era of the Revolution. "Rashness usurped its place."

more than capital, to get into business. But a period of paper-money inflation is liberal and kindly to all. It gives every man, competent and incompetent alike, a chance in his turn. Literally and for everybody there is no such word as fail. Now it is a proposition not for a moment to be disputed, that the incompetent do business at a great cost to the general community. Bad management is the heaviest possible tax on production. Whatever cause tends to swell the number of incapable employers injures the working classes, both in the rate and in the regularity of their wages. Slavery does this; shilly-shally laws relating to insolvency do this; truck does this. Each of these causes enables men to escape the consequences of incompetency, and to hang miserably on to business where they are an obstruction and a nuisance; living on the community without returning any valuable consideration; carrying on production at the cost of others, every now and then breaking down the market by sacrificing a mass of ill-made or unseasonable goods, and, in the end, starting the course of bankruptcy, which, when aggravated and inflamed by panic, brings down perhaps the best and strongest houses.

Most of all does bad money make a place for the shiftless and the reckless, where they can live at the expense of the general community.

Even the natural leaders of trade, the thoroughly able and accomplished men of business, are likely to be greatly injured in character by paper-money inflation. It does a man no good to have much odds given him. When profits are sure, in any event,

when large and sudden gains are possible, the best of men do not act like themselves. They feel above the necessity of small savings and painful thrift. They are ready to conduct affairs on a liberal scale and in a courageous spirit, which in three cases out of four means extravagance and recklessness.

Such are the natural, we may say the necessary, consequences of inflation when carried to no greater excess than during our civil war. Where all bounds are broken, and full course is given to the impulse to overissue, the consequences are far more painful. President White thus speaks of the effects wrought upon the industrial and social constitution of France by the Revolutionary paper money of 1790 and 1791 :

"The first of these was the obliteration of thrift in the minds of the French people. The French are naturally a thrifty people ; but with plenty of money, and with uncertainty as to its future value, the ordinary motives for saving and care diminished, and a loose luxury spread throughout the country. A still worse outgrowth of this feeling was the increase of speculation and gambling. With this plethora of paper currency in 1791 appeared the first evidences of that cancerous disease which always follows large issues of irredeemable currency, a disease more permanently injurious to a nation than war, pestilence, or famine.

"At the great metropolitan centres grew a luxurious, speculative, stock-gambling body, which like a malignant tumour absorbed into itself the strength of the nation, and sent out its cancerous fibres to the remotest hamlet. At these centres abundant wealth was piled up. In the country at large there grew dislike of steady labor and contempt for moderate gains and simple living."

All the mischiefs which paper-money inflation produces in the commercial are speedily duplicated

in the industrial system; but wholly in addition thereto, the latter suffers a deformity and distortion which last through years of painful suffering and weakness. Trade can recover itself with comparative ease. To the merchant a change of times may mean only the buying and selling more in one line and less in another; but production does not get back so easily to the channels it has left. The change of labor and capital is made slowly and painfully, with great loss and much individual hardship. It may take years to transfer the excess from the overdone branches of production to those more solid and substantial industries which have been depleted under the drain caused by a speculative mania and an era of personal extravagance. This is what we have been trying to do for the past five years—to restore the equilibrium of occupations which had been disturbed by the excitements and follies of the period preceding 1873. Shall we ever wish to do the thing over again, and buy a few years of false prosperity and riotous living at the cost of so tedious and painful a repentance and recovery?

The social effects of a paper-money inflation are so fresh in the mind, through our recollections of our own Greenback Era, that I need not recall the wanton bravery of apparel and equipage; the creation of a countless host of artificial necessities in the family beyond the power of the husband and father to supply without a resort to questionable devices or reckless speculations, or to drafts on the proper business capital or the once sacred family reserve; the humiliating imitation of foreign habits of living,

with but the faintest conception of the modes of thought and feeling and the customs of social intercourse which underlie them abroad ; the loss of that fit and natural leadership of taste and fashion which is the best protection society can have against sordid material aims, and manners at once gross and effeminate, against democracy without equality or fraternity, and exclusiveness without nobility or pride of character.

Nor was it only the weak and vicious who were drawn into this dance of folly. Such is the power of bad money to put an entire community under a moral and economical illusion as perfect as ever an optical illusion was ; so natural is it to spend lightly what has been lightly earned ; such is the tyranny of fashion, such the force of example ; so almost universally does the vulgar, the barbarian love of show lurk in the depths of the mind, beneath culture and prudence and acquired graces of disposition, that even the wisest and the strongest were scarcely able through all that time to keep their heads unaffected by the whirl of gayety and display.

The effects upon public morality of a paper-money inflation are not less clearly to be discerned in the period to which we allude. It was, perforce, an era of sudden and bewildering change, of unearned gains, of undeserved losses. What wonder that men lost their hearts as well as their heads, and committed themselves hopelessly to dishonor and fraud ! With opportunities so near, prizes so dazzling, it is not strange that embezzlement and abuse

of trust became common, covered here by success, revealed there by final and fatal failure.

The principles of virtue are meant to bear no such temptations. They have all they can do to maintain themselves when the steady pressure of public scrutiny is upon us; when the gracious proportion of labor to its reward is accurately determined; when the sense of economical justice is kept clear and strong. Few can keep their heads in a time of fierce commercial excitement. Few can keep their hearts, out of which are all the issues of life, when fortunes are lost in a moment, without a fault, or won by a single act of falsehood.

But what of the classes who have no place in society so called, and which the fashionable world only know as living somewhere, somehow? What of the working classes, and the poor?

The effects of paper money inflation fall here and abide here without relief.

In the competition which the laborer has incessantly to maintain, both with his employer and his fellow laborers, his interest will not come to him, he must go to it; and to do so he must be able to identify it and locate it with precision and assurance. With bad money in circulation, the laborer in making his demand on his employer for wages must follow blindly around after prices, guided only by a general sense of the inadequacy of what he is at present receiving. It was in view of the inability of the laboring classes, through poverty, ignorance, and inertia, to meet sudden and violent changes of condition, that Mr. Mill assigned to custom in

economics the same beneficent function which it has performed in politics, as "the most powerful protector of the weak against the strong."

Usage, habit, constitute a barrier which in a degree protects the economically weak against the hustlings and jostlings of the market place. A fluctuating paper money breaks down the barrier and involves all classes in a furious and incessant struggle, in which the feeblest are sure to go down and be trampled on.

But it is not alone in competition with his employer that the laborer is put at disadvantage. If it is difficult for him to secure the proper adjustment of his wages to the varying cost of living, much more difficult is it for him to hold his own in the struggle with the retail dealer.

He expends his earnings in hundreds of small purchases. If those earnings come to him in depreciated paper, and are to be expended for commodities at inflated prices, how is he to tell what he ought to pay per pound, per bushel, or per yard? He knows nothing of the conditions of the production of the articles he purchases, and no longer has a traditional price to guide him. Once, if an article of domestic consumption rose, he was in the mood, and in the position, to resist the advance. He disputed the new price; he alleged the customary price; he held off buying; he inquired elsewhere.

With bad money this hold of the retail buyer upon customary price is broken. The laborer loses his reckoning. When prices go up, he can not judge where they should stop. After finding advance

upon advance established, in spite of his questioning and complaints, he becomes discouraged. He pays without dispute what the shopkeeper demands. Then it is that the retail dealer gathers his largest profits, and works his worst extortions.

Justly did Mr. Webster say:

"The very man of all others who has the deepest interest in a sound currency, and who suffers most by mischievous legislation in money matters, is the man who earns his daily bread by his daily toil.

"Of all the contrivances for cheating the laboring classes of mankind, none has been more effectual than that which deludes them with paper money. This is the most effectual of inventions to fertilize the rich man's fields with the sweat of the poor man's brow.

"Ordinary tyranny, oppression, excessive taxation—these bear lightly on the happiness of the mass of the community compared with fraudulent currencies and the robberies committed by a depreciated paper."

CHAPTER X.

BANK MONEY.

In proceeding to consider the nature and uses of Bank Money, which form the subject of the three remaining chapters, an analysis of the banking function will conduce to clearness and comprehensiveness of view, though for a time it may draw us away from the topic of money.

"The trade or profession of banking," says Lord Liverpool, in his memorable letter to the King, on the Coins of the Realm, "has been exercised in all countries and in all ages. It existed in the republics of Greece and in ancient Rome. There were in all these States men who received money as a deposit, repaid it upon the drafts of those who had intrusted them with it, and derived their profits from having this money in their custody."

The banker of to-day is not, however, in any sense a descendant of the banker of Greece or Rome. The entire ancient system of banking died completely down in the dark ages which followed, and the modern banking system is an independent growth, having no historical connection with that of the earlier world.

The modern bank first appeared in Italy. The earliest Italian banks, says Mr. Bagehot, "were finance companies. The Bank of St. George at Genoa, and other banks founded in imitation of it,

were at first only companies to make loans to, and to float loans for, the governments of the cities in which they were formed."

This, then, we may regard as the first banking function developed in order of time: Financiering.

The Bank of England began in a loan of £1,200,000 to the government by capitalists, who received in consideration a charter constituting them the governor and company of the Bank of England. Under the existing National Banking system of the United States, the bank begins operations by loaning all or the greater part of its capital to the government.

The second banking function developed in order of time was to give the people good money. It was to serve this office that the banks of Northern Europe had their rise.

"Before 1609," says Adam Smith, "the great quantity of clipped and worn foreign coin which the extensive trade of Amsterdam brought from all parts of Europe reduced the value of its currency about 9 per cent below that of good money fresh from the mint. Such money no sooner appeared than it was melted down or carried away, as it always is in such circumstances. The merchants, with plenty of currency, could not always find a sufficient quantity of good money to pay their bills of exchange; and the value of those bills, in spite of several regulations which were made to prevent it, became in a great measure uncertain.

"In order to remedy these inconveniences, a bank was established in 1609 under the guarantee of the city. This bank received both foreign coin and the light and worn coin of the country at its real intrinsic value in the good standard money of the country, deducting only so much as was necessary for defraying the expense of coinage and the other necessary ex-

pense of management. For the value which remained after this small deduction was made, it gave a credit on its books. This credit was called bank money, which, as it represented money exactly according to the standard of the mint, was always of the same real value, and intrinsically worth more than current money. It was at the same time enacted that all bills drawn upon or negotiated at Amsterdam of the value of 600 guilders and upwards should be paid in bank money, which at once took away all uncertainty in the value of those bills."

Adam Smith, as we have seen, calls the credits inscribed on the books of the Bank of Amsterdam bank money; but that bank money, if it is properly to be called so, differs from the bank money of to-day in two respects. It did not circulate from hand to hand, as the ordinary medium of effecting exchanges; it was never in excess of the amount of metallic money actually on deposit.

The third banking function is the cancellation of indebtedness.

Under the modern system of credit an enormous amount of indebtedness exists in every civilized community, not occasionally, or as the result of commercial misfortune, but in the usual course of business. To a degree the mutual cancellation of debts is effected without the intervention of any separate agency.

The farmer credits his hands with their wages, and charges them with his advances, from time to time, and at the end of the season or of the year, a balance is struck, and the difference only is paid. Farmers who are neighbors do the same thing in their mutual accommodations in respect to supplies, or their truck and dicker over farm produce and

stock. The country storekeeper, on his part, sets off the value of the produce received from the farmer against the entries of goods sold, and at the reckoning, the indebtedness, so far as it is mutual, disappears, and only the excess on one side or the other remains as a charge on the new account, or is paid down in money.

But it is manifest that the more complicated become the relations of industrial society, the wider spread the ramifications of commerce, the smaller will be the proportion of indebtedness that is mutual; the greater, not only absolutely but relatively, will be the body of obligations which can not be discharged in this way. The cotton manufacturer, perhaps, does not sell to a single person from whom he buys.

Now, if we suppose all these debts to be owing in the same town or city, and to fall due on the same date, we see what a great saving of time and labor, of annoyance and disappointment, resulting oftentimes in personal and commercial discredit, would be saved if all the persons engaged in trade in such town or city could be made debtors to one person or corporation, in respect to all their obligations falling due, and creditors in respect to all debts owing them, and thus a cheap and easy extinguishment of indebtedness take place, through the intervention of a third party, who, by putting himself now in the debtor's and now in the creditor's place—that is, by becoming debtor and creditor alternately, at the request and on the warrant of the trading in-

dividuals concerned, should effect that mutuality of obligations which is the condition of cancellation.

It is in the bank that the claim of the creditor and the obligation of the debtor thus meet, and are simultaneously discharged.

We have assumed that the body of indebtedness under consideration all fell due at the same time. But if we suppose the dates of obligations to vary widely, the advantage of a common place of payment, and of a person to act vicariously as debtor and creditor by turns, will appear greater. A has a debt due to him from B April 4th. He has an equal amount to pay to C April 25th. He will, therefore, hold the money received from A three weeks, till his debt to C falls due. He has, perhaps, no occasion to employ his money meanwhile; the time is too short for a loan, and he thus stands out of any practical use of a portion of his capital. The bank, acting for hundreds of debtors and hundreds of creditors, can closely adapt income to outgo; can use B's payment to meet D's claim on the 4th of April, and discharge A's debt to C on the 25th of the month, with funds paid in that day by E.

In connection with this function of banking let us note an incidental advantage of no small importance which accrues therefrom to the community. I refer to the habit of business punctuality. The difference between the commercial and the uncommercial payment of debts is very marked; but perhaps we do not adequately appreciate the degree to which the superior promptitude of the commercial body in this respect is due to the existence of banks.

In transactions between individuals we know how frequent are delays in meeting obligations; how natural are excuses for present inability. The only reason why the same vice does not run through the whole commercial body is to be found in the establishment of banks. As between man and man, the tendency to evasion and procrastination of payment is naturally strong, and grows by indulgence; but between a man and a bank no trifling is likely to be tolerated. It is said that corporations have no souls; and in many respects the severity of dealing and the suppression of personal kindness, which are characteristic of a corporation, do little honor to human nature. But in the matter of enforcing punctuality in commercial payments the influence of the corporate character is wholly for good.

It may not be true that punctuality is the parent of all virtues; but unmistakably is procrastination the mother of every vice, whether in social or personal character. There is nothing for making duty easy like bringing men sharply up to it, and firmly holding them there. On the other hand, obligations grow heavier and heavier the longer they are put off. What was first procrastinated, it is soon sought to evade; self-respect wilts under the reproaches of the creditor; dishonest suggestions arise unrebuked in the mind that would once have thrust them indignantly out.

The advantage which the bank confers on the community, in introducing a rigid standard of punctuality, can not be overrated. If wholesale commerce had to suffer the delays, the disappointments,

the enhanced expense and the ultimate loss which come to retail trade from the cause indicated, wholesale commerce on such a scale as we now see around us would probably be impossible.

Nor is the wholesome effect of the punctuality which banks enforce limited to the mere payment of notes given in the course of trade. It becomes a means of education to the entire community. Ideas of duty are likely to be clearer, the sense of duty is likely to be stronger throughout the whole community in consequence. And I have often questioned whether the existence of the "one-price system," which so distinguishes retail trade in England and the United States, the two great banking countries of the world, is not largely due to the influence of banks. A generation or two ago the habit of bargaining in matters of retail trade was general, as it is to-day on the continent of Europe; but it has now become a principle of commercial morality, universally recognized here and in England, that the dealer shall not demand a higher price than the lowest he is prepared to take.

The fourth banking function is to remit money and conduct exchanges.

What is termed exchange is merely the familiar principle of the mutual cancellation of indebtedness carried out to trading communities and nations. The name is derived from the fact that formerly this involved the changing of the money of one country for that of another, with a nice calculation of the respective fine gold, or fine silver, contents of the coins. The term is now, however, applied

equally to cases where no money-changing takes place, as where two nations, like France and Belgium, have equivalent money pieces—the five-franc, ten-franc, and twenty-franc pieces—and also to cases where the transactions are between two communities under the same government. In essence, when a merchant buys exchange, he simply buys the right to have paid to him, or his agent, in some other place, a certain amount of fine gold or silver.

Exchange between two places is at par when by paying-in a certain amount of gold or silver in one place you can purchase the right to receive an equal quantity of gold or silver in the other. There can be no par-of-exchange between gold countries and silver countries except under the force of the bimetallic system, establishing a legal equivalency between the two metals.

Exchange is above or below par when the right to receive elsewhere a given amount of gold or silver is to be purchased by paying-in a larger or smaller amount of gold or silver in the place where the transaction is effected.

Exchange will be at par when the sums of the payments to be made to and from any two places within a given time exactly balance each other. In this case no actual transfer of money will take place.

The dry goods importers of New York, let us suppose, sell to Chicago in a given time English goods to the value of $5,000,000. The grain exporters of New York at the same time send abroad $5,000,000 worth of grain received from Chicago.

Shall the New York grain exporters send $5,000,-

000 to Chicago, and the dry goods dealers of Chicago send $5,000,000, perhaps the same notes, in unbroken packages, to New York? Clearly this would involve waste of labor and necessary risk of loss. Instead, the dry goods dealers of Chicago, having sold their stock into the country at a profit, pay upon the order of the New York importers of dry goods $5,000,000 to the grain shippers of Chicago, who out of this sum pay the grain growers and realize their own profit.

The New York grain exporters, selling the grain in London at a profit, pay on the order of their Chicago creditors $5,000,000 to the New York importers of dry goods.

But since these latter have to pay the West of England manufacturers, not in New York, but in London, they arrange with the grain exporters not to bring home the money proceeds of their sales in Mark Lane, but to transfer to them the right to draw for the amount upon the purchasers.

This is done, and the New York dry goods importers, now become the creditors of the English grain importers, direct them by letter to pay the claims of the English manufacturers of broadcloths and kerseys.

From this simple statement of a case of direct domestic and foreign exchange, involving no circuitous adjustment, or "arbitration," so-called, of exchanges, will be seen the importance of the banking function now under consideration. If every merchant who had to pay money elsewhere was obliged for himself to find out some person who had the right

to receive money at the same place, at the same time, and in the same sum, an inconceivable amount of inconvenience and delay, of vexation and disappointment, often resulting in personal and commercial discredit, would be experienced. Instead of this, the bank stands ready to buy all rights to receive money in every quarter of the globe, and to sell the same at current rates to all persons having to pay money abroad.

If we may follow Mr. Henry Thornton, in his memorable work on Paper Credit, published in 1802, it was through a gradual growth of exchange operations between the country and the city, on the part of shopkeepers or manufacturers, that the country banks of England originated.

The fifth banking function is to serve as a place of safe deposit. It was the danger of pillage in the unlighted, ill-guarded city, so strikingly described by Macaulay, in the well-known third chapter of his History, which gave rise to the banks of London, in the seventeenth century.

Merchants and men of means, fearing to keep large amounts in their houses, where during portions of the time these could be protected only by women and apprentices, formed the habit of depositing their surplus in the Tower, where it was safe against violent depredation.

But not, as it proved, to their sorrow, against royal rapacity. Charles I., hard pressed by financial exigencies, and entertaining perhaps the less scruple for that London had shown not a little of

the spirit of rebellion, at one fell swoop robbed the merchants of their accumulated wealth.*

"The next resource of the merchants," says Mr. Francis, in his History of the Bank of England, "was to keep their cash in their own houses. To do this they were obliged to trust their servants and apprentices. As the civil war advanced, however, the love of fighting often overcame the love of honesty, and they, with the money entrusted to them, disappeared. From the evil arose the remedy. The goldsmiths up to this period were employed, with some exceptions, in the ordinary way of their vocations. They were a rich body, and it was natural that the richest should be most trusted.

"The rich deposited their cash for security, without interest. The widow and orphan received four per cent; and with the money thus obtained the goldsmith was able to increase his business by the somewhat new branch of discounting bills. They thus became money-borrowers and receivers of rents. They lent money to the King on the security of the taxes. The receipts they issued for the money lodged at their houses circulated from hand to hand, and were known as goldsmiths' notes. These may be considered the first kind of bank-notes issued in England."

Thus it was that Lombard Street, the goldsmiths' street of the sixteenth and seventeenth centuries, came to be the greatest banking street of the world.

The sixth and the chief of the legitimate functions of the bank is to serve as an intermediary in effecting the loan of capital. The technical terms, deposit and discount, serve to characterize this function. It is here that banks make their largest contribution to the industrial advancement of the community in which they are situated. This office of

* The repayment of this sum, or rather of one half of it, long afterwards gave rise to the first item of the National Debt of Great Britain.

banking is, however, as much overrated by some as it is underrated by others.

The claim that banks create capital, or work any miracles in production, such as Sir Archibald Alison and other writers attribute to them, or do any thing whatever that is not susceptible of precise economical definition and explanation, is wholly unfounded. "No doubt," says Mr. McCulloch, "we frequently hear of great undertakings being carried on by means of credit; but such statements are false and misleading. They will, indeed, be uniformly found, when analyzed, to mean only that the undertakings are carried on by means of borrowed capital."

But while the extravagant or false apprehension of the office of the bank as the creator of capital, or the magician under whose wand palaces and warehouses rise without human labor, has led to much practical evil by encouraging the formation of institutions, under circumstances, or on conditions, or to an extent, such as a juster view of the nature of banking would not have approved, there is, if possible, even less excuse for such disparagement as is contained in Mr. Condy Raguet's work on Currency and Banking, in which, speaking of banks of discount, he says:

"From this view of the subject, how clear is to be seen that what the bank has thus far performed is nothing more than what the individuals who own the capital of the bank could themselves have performed more cheaply, quite as securely, and perhaps more advantageously to the public, seeing that loans to unskilful and improvident borrowers, of which individuals are not so apt to be guilty as corporations, lead to a diminution of the wealth of a country."

Now, so far is this from being true, a very large part of the capital which, in the modern organization of industry and trade, is loaned through the agency of banks would without banks not be loaned at all; while the attempt of individual lenders to deal with individual borrowers without the agency of a professional intermediary such as is the bank, would result in an increase of losses almost beyond computation, to the great discouragement of frugality and industry as well as the immediate diminution of the available capital of the country.

So important is this function that many writers, in speaking of banking, have only this in mind, disregarding all the other functions. With them banking means simply deposit and discount.

The seventh and last banking function is the issue of paper money. It is an inveterate habit of mind among Americans to think and speak of this as if it were the chief or even the sole work of the bank. And, indeed, we have had many banks which had no other reason for their existence than the issue of notes, while it may be fairly said that, through extensive periods of our history, this function has been so far magnified as to dwarf all the others. It is partly on account of this acquired habit—I don't know but we might say native propensity—of the American mind, that I have dwelt so fully and particularly on the several offices of the bank in modern times.

So far from the issue of notes being regarded in other countries as the chief work of banking, many of the largest banks of the world never issue a scrap

of paper money, while among those which have and exercise this power, the functions of exchange and of deposit and discount are held in far higher estimation.

As to the absence of any necessary relation between banking and paper money, there is substantial unanimity among economists.

"Issuing," says Mr. Nicholson, "is creating money; banking is managing money after it has been issued."

"A bank of issue," says Lord Overstone, "is intrusted with the creation of the circulating medium; a bank of deposit and discount is concerned only with the use, distribution, or application of that circulating medium. The sole duty of the former is to take efficient means for issuing its paper money upon good security, and regulating the amount of it by one fixed rule. The principal object and business of the latter is to obtain the command of as large a proportion as possible of the existing circulating medium, and to distribute it in such a manner as shall combine security for repayment with the highest rate of profit. . . . The principles upon which these two branches of business ought to be conducted are perfectly distinct, and never can be reduced to one and the same rule."

Such being the several banking functions, we note that the agencies by which these functions are performed may be thrown into four groups; the State bank, the joint stock bank, the private bank, and the bill brokers and dealers in exchange.

It is not easy to say what constitutes a bank a State bank. The State may own a portion of the

stock of a bank, and yet not give it this character. The State may have the appointment of a certain number of directors, and have a certain share in the management, and yet the bank remain merely a joint stock bank of the usual type. The State may confer certain peculiar privileges, and even the monopoly of certain advantages upon a bank, and yet not make it a State bank. In just what degree ownership by the State; participation by the State in the management; privileges, and immunities conferred by the State, constitute a State bank, is, as has been said, not easily determined.

The new Imperial Bank of Germany is in a high sense a State bank, like the Royal Bank of Prussia, out of which it grew. The Bank of France is truly a State bank, notwithstanding features which on many sides make it resemble the ordinary joint stock bank. The Bank of England is, in an important sense, a State bank, not only not in consequence of legal obligations or legal privileges, but in spite of its own constitution and of the public will, so far as that is expressed in law. Ever since its creation, at the close of the seventeenth century, statesmen and writers have agreed that the Bank of England is not a State bank; that the management are only bound by their duty to the stockholders; that the directors have even no right to entertain considerations of public policy. Yet, in spite of all this, the Bank of England is a State bank in no small degree. Its history makes it so; the traditions of its management, the expectations of the public, the attitude of the other banks towards it, its responsibility as the sole

holder of the specie reserve of the kingdom, its very name—all combine to give it the character of a public and not a private corporation, as in form and law it is. Its monopoly of issue within sixty-five miles of St. Paul's, its successive charters, its exclusive management of the National Debt, the strict regulation of its note department by the Act of 1844, contribute even less to give it the character of a Bank than the traditions which govern in the bank parlor, and the general consent of people and bankers, both of city and country, to regard it as a national institution.

The several banking functions are assigned to the several banking agencies in very different proportions in different countries. In a few great cities, in consequence of the rapid increase of certain forms of property—scrip, and bonds and deeds—special institutions have been erected to perform the function of safe deposit. The function of reducing the heterogeneous mass of worn or defaced coins to terms of a common standard of weight and fineness, which, as we have seen, gave rise to the Bank of Amsterdam and the other early banks of Northern Europe, is now chiefly performed by government mints or assay offices, or by a few State banks.

The manufacture of paper money also, as we saw, is not regarded by economic writers as a necessary part of banking, and by many is regarded as illegitimate. The other banking functions are performed indiscriminately by all the banking agencies before named, but in very different proportions in different countries. England has the most perfect organiza-

tion of the banking system, as befits the greatest capitalist nation of the world.

The work of deposit and discount, the chief banking function, is there performed by the Bank of England and the joint stock banks, by the private banks, and by the bill brokers and dealers in exchange; but by each group of agencies upon somewhat different principles. The English writers claim, probably with justice, that their minuteness of organization conduces to a more precise and more intelligent adaptation of banking resources to the needs of the community.

The joint stock bank discounts on general principles and under fixed rules. It may, it does, take into account the special liabilities of different branches of trade and manufacture, as affecting the safety of advances and the period of credit; but it pays little attention to individual characteristics, or the circumstances of particular cases. It has a standard; whatever comes up to that standard passes; whatever falls below is, generally speaking, rejected. The bank makes small allowance for exceptional reasons, and eliminates the personal element almost completely.

This limitation of the power and usefulness of the joint stock bank is thus expressed by Lord Overstone in his evidence before the committee on the bank charter of 1840:

"I think that joint stock banks are deficient in every thing requisite for the conduct of banking business, except extended responsibility. The banking business requires peculiar persons, attentive to all its details, constantly, daily and hourly, watch-

ful of every transaction, much more than the mercantile or trading businesses.

"It also requires immediate, prompt decisions upon circumstances when they arise—in many cases a decision that does not admit of delay for consultation. It also requires a discretion to be exercised with reference to the special circumstances of each case. Joint stock banks being, of course, obliged to act through agents, and not by a principal, and therefore under the restraint of general rules, can not be guided by so nice a reference to degrees of difference in the character or responsibility of parties; nor can they undertake to regulate the assistance to be granted to concerns under temporary embarrassment by so accurate a reference to the circumstances, favorable or unfavorable, of each case."

The private banker enters to make good the failure of the joint stock bank in this respect. Both from the freedom of action, which always characterizes a principal as compared with an agent, and from the fact that his customers are generally customers of long standing, having come down, it may be, in his family, like the andirons in the bank parlor, he can inquire into the condition and prospects of an applicant's finances; he can act upon information obtained by private inquiry of his clerks, or given confidentially by the applicant himself; he is at liberty, and for him it is safe, to make exceptions to rules of practice, and even, at a pinch, to condone irregularities, which are shown to be the result of necessity; and so in many ways he can do what the British joint stock bank can not do.

In spite of the advantages which Lord Overstone attributes to the private banker over the joint stock bank, we are called to note the steady decline in

England in the number of the former class. Mr. Bagehot, in his Lombard Street, states that of forty Lombard Street houses which in 1810 were admitted to the clearing house, but thirteen survive, not a few having been turned into joint stock companies. The reason Mr. Bagehot gives for the fact that no new private banks are being founded in England is that "men of first-rate wealth will not found one, and men not of absolutely first-rate wealth can not." "A large bank," he adds, "always tends to become larger, and a small bank to become smaller."

The bill broker comes even closer down to the facts of individual cases. With him there are no rules, no prescriptions, no traditions, no prejudices. Nothing goes to support dignity or create illusions. The lame, the halt, the blind, financially speaking, are not turned from his door. At his price, and on his terms, any man can get a loan. Even though the customer may have played false before, that constitutes no reason against making a bargain with him now, though it constitutes an excellent reason for putting up the rate.

Often the greater part of the bill broker's charge for discount is in the nature, not of interest, but of remuneration for the risk of the capital loaned, *i.e.*, insurance. Coolly, deliberately, with an instinct almost preternatural, and with the advantage of an experience dearly enough bought, he measures his man and calculates his risk, sets his price high enough to cover contingencies, secures himself by every known means, and exacts his due with a re-

ligious confidence in the proposition that a thing is worth what it will fetch.*

I do not doubt that the claim of the English writers, that their higher organization effects a greater economy and a closer application of the banking resources, is a just one. In this country, private bankers and bill brokers, though always known in our larger cities, have never filled that place which they occupy in England. With us the vast proportion of all banking business has always been done by joint stock banks. In general, the American banks of the better class have exhibited great shrewdness, sound judgment, and practical sense in overcoming the difficulties which Lord Overstone points out as besetting the performance of the discount function by a corporation acting through agents and upon general rules. It is, however, as the manufacturers of paper money that the American people chiefly know their banks.

We have seen that the banks of Italy first arose as finance companies; that it was to meet the exigency of a circulation of clipped and worn coins, of a great variety of nationalities and of many degrees of purity, that the banks of Northern Europe were chartered; that the country banks of England grew out of the practice of remitting money and conducting exchanges through shopkeepers; that the city banks of London first appeared as places of safe deposit

* Mr. McLeod says: "In ordinary times in London the second-class bill brokers charge their customers one shilling in the pound on three months' bills, which is in reality discount at the rate of twenty per cent, or interest at the rate of twenty-five per cent per annum."

in the troubled times of the Great Rebellion; and that the function of deposit and discount in modern times has risen to such importance as to overshadow and dwarf all other offices of the bank, and to become, in the estimation of the economical writers of Europe, the great—by comparison, we might say, the sole—banking function. On this side the water, however, the idea of banking was at the beginning almost wholly, and is even to-day very greatly, associated with the issue of notes promising to pay specie to the bearer on demand, which are intended to become, and in fact do become, the ordinary money of the people.

Indeed, the word bank in early New England did not mean an institution at all; it did not bring up the image of a corporation having a place of business and offices with counters and safes and vaults, receiving deposits, discounting notes, and conducting exchanges. It meant simply a batch of paper money. Rhode Island in 1715 issued £40,000 in paper money, which was known as the First Bank. In 1721 came another bank, more paper money to the amount of £40,000, and in 1728 a third bank, simply £40,000 in paper. After the Revolution, however, the bank took its modern form; it became an institution doing business, having a local habitation and offices, issuing notes for which it promised to pay specie. Bank money differs vitally from the government paper money which has formed the subject of the two preceding chapters. It is issued by a company or corporation, the creature of the law, and subject to the courts. Generally speaking, this money is not

legal tender for debts; its acceptance depends on the will of the receiver, and is more or less affected by the credit of the issuer; the promise made on the face of the notes can be enforced at law, and the corporate property, if not, as in some European countries, all the property of the individual shareholders, is made liable for the payment of the notes. To meet this liability, therefore, the bank, as a matter of ordinary prudence, keeps on hand an amount, greater or less, of gold or silver, which is known as the specie reserve. Paper money thus issued by banks, with the promise of redemption on demand, and based upon an actual reserve of specie, is called convertible paper money, as distinguished from the paper money issued by governments, of which the conversion into coin is not promised, or at least not provided for. It constitutes the third and, as yet, the highest form of paper money developed in the history of trade. Most economical writers seem disposed to regard it as the ultimate form of money.

Bank money in the modern sense was first issued in Sweden. The institution which afterwards became the Bank of Sweden was founded in 1656. The first note was issued in 1658, nearly forty years before the Bank of England was chartered. Even when the latter institution came into existence, it did not for a long period issue notes of low denominations. The practice of issuing bank notes as the ordinary money of circulation began in Scotland long before it did in England, the Bank of Scotland issuing £1 notes as early as 1704.

The most apparent motive for the issue of con-

vertible paper money is found in the greater convenience of paper as compared with gold, and in a still higher degree with silver. A thousand half-eagles weigh about twenty-two pounds troy ; silver of the same value sixteen times as much. Any large amount of metallic money would not only be exceedingly cumbersome, but its presence could hardly escape observation, inviting not only to robbery but to graver violence.

Impatience of heavy money is, however, shown in very different degrees in different countries, the English having no notes under $25, the Scotch and Irish none under $5, while the American public appear to find notes as low as $2 or $1 indispensable in their transactions.

The second motive for the issue of convertible paper money is its greater cheapness, since it is ascertained that a much larger amount of notes can be kept in circulation than is held of specie for redemption ; and the issuer of the paper derives a profit from the interest on all notes loaned, above the coin and bullion in his possession.

"The gold and silver money," wrote Adam Smith, "which circulates in any country may very properly be compared to a highway, which, while it circulates and carries to market all the grass and corn of the country, produces itself not a single pile of either. The judicious operations of banking, by providing, if I may be allowed so violent a metaphor, a sort of wagon-way through the air, enable the country to convert, as it were, a great part of its highways into good pastures and cornfields, and thereby to increase very considerably the annual produce of its land and labor.

"The commerce and industry of the country, however, it

must be acknowledged," continues Dr. Smith, "though they may be somewhat augmented, can not be altogether so secure when they are thus, as it were, suspended upon the Dædalian wings of paper money, as when they travel about upon the solid ground of value."

The closing sentence intimates a contingency to which convertible paper money is always in a greater or less degree subject—namely, a demand upon the banks for the redemption of their notes, persisted in so far as to exhaust their reserves of specie, and thus to bring about the stoppage of payments and a money panic.

Yet though the issue of bank notes on a partial basis of specie, upon the chance that all the notes out will not be presented for redemption at one time, is always at a certain risk, this does not constitute a fatal objection to paper money banking, if it be otherwise desirable.

Men and communities rightly take the risk of collisions and boiler explosions involved in the use of steam cars and steamboats, for the sake of the saving in time and the gain in power which result from the use of those agencies.

Just what proportion between notes and specie reserves will, in the balancing of gain against loss, leave the largest net result in favor of such a system, is purely a banking question. Lord Overstone regarded one third bullion as sufficient, in England. This is the proportion actually taken in many countries of Europe, as the legal minimum reserve. The one third rule, though general, is far from being universal. In Bavaria, before the unification of Ger-

many, a specie reserve of only one fourth was required, while in Leipsic the reserve was two thirds. The Royal Bank of Prussia, before it was lost in the new Imperial Bank of Germany, held not less than seventy-two per cent in specie upon both its circulation and its deposits. On the other hand, the banks of the United States before the war ran upon an almost insanely small amount of specie, the proportion in some States falling to fifteen, ten, five, or even three, per cent.

It is evident that the conditions of issue and redemption must differ so widely, as between different banks, as to make it impossible to fix any single ratio which shall at once effect the greatest economy in specie reserve on the part of the bank and afford sufficient security to the noteholder.

A third advantage has by some been claimed for Bank Money over Metallic Money, namely, its superior Elasticity, so-called.

By elasticity of Bank Money is meant that the supply of such money is more rapidly, easily, and surely increased, to meet any increase of demand in the immediate locality or country of issue, than could be the case with metallic money where the new supplies would have to be brought, at some loss of time, at some expense, against some resistance, from other localities or countries. Logically, it should equally be implied that at every falling off in demand the supply of bank money would be correspondingly reduced with greater certainty and celerity than would be the case with metal money.

must be acknowledged," continues Dr. Smith, "though they may be somewhat augmented, can not be altogether so secure when they are thus, as it were, suspended upon the Dædalian wings of paper money, as when they travel about upon the solid ground of value."

The closing sentence intimates a contingency to which convertible paper money is always in a greater or less degree subject—namely, a demand upon the banks for the redemption of their notes, persisted in so far as to exhaust their reserves of specie, and thus to bring about the stoppage of payments and a money panic.

Yet though the issue of bank notes on a partial basis of specie, upon the chance that all the notes out will not be presented for redemption at one time, is always at a certain risk, this does not constitute a fatal objection to paper money banking, if it be otherwise desirable.

Men and communities rightly take the risk of collisions and boiler explosions involved in the use of steam cars and steamboats, for the sake of the saving in time and the gain in power which result from the use of those agencies.

Just what proportion between notes and specie reserves will, in the balancing of gain against loss, leave the largest net result in favor of such a system, is purely a banking question. Lord Overstone regarded one third bullion as sufficient, in England. This is the proportion actually taken in many countries of Europe, as the legal minimum reserve. The one third rule, though general, is far from being universal. In Bavaria, before the unification of Ger-

many, a specie [illegible] quired, while in [illegible] The Royal Bank of [illegible] new Imperial Bank of [illegible] seventy-two per cent [illegible] tion and its deposits. [illegible] of the United States [illegible] most insanely small amount [illegible] tion in some States falling [illegible] even three per cent.

It is evident that the conditions of [illegible] must differ so widely, as between different banks, as to make it impossible to fix any [illegible] ratio which shall at once effect the greatest [illegible] in specie reserve on the part of the bank and [illegible] sufficient security to the noteholder.

A third advantage has by some been claimed for Bank Money over Metallic Money, namely, its superior Elasticity, so-called.

By elasticity of Bank Money is meant that the supply of such money is more rapidly, easily, and surely increased, to meet any increase of demand in the immediate locality or country of issue, than could be the case with metallic money, where the new supplies would have to be brought, at some loss of time, at some expense, against some resistance, from other localities or countries. Logically, it would equally be implied that at every falling off of demand the supply of bank money would be correspondingly reduced with greater certainty and celerity than would be the case with metal money.

prejudicial. [illegible] e increased [illegible] t certain to [illegible] tion of de- [illegible] with an in- [illegible] se extrava- [illegible] ng, and dis- [illegible] In other [illegible] which they [illegible] ol attribute, [illegible] e evils of [illegible] utomatic [illegible] ndency [illegible] is the [illegible] and [illegible] rman [illegible] uet

This is the single disputed point in the theory of bank money.

The superior convenience of such a medium of exchange is acknowledged by all. It is also beyond question that such money may safely, as a matter of banking, be issued in excess of the specie held for its redemption; and, by the exercise of sound judgment, such economy may be carried a great way without danger.

But the further questions whether a circulation thus constituted performs the money function precisely in all respects as a metallic circulation would have done; or, if it be conceded that its operation in any way or degree differs from that of metallic money, whether that difference will be to the advantage or the prejudice of trade, industry, and society; these questions are hotly disputed, and have given birth to a body of controversial literature of almost incredible dimensions.

Does the so-called Elasticity of Bank Money exist? If it exists, is its influence good or evil?

Three schools, each comprising writers of eminence, maintain their separate views.

The first declare that the facility of local issues gives an elasticity to local circulation which enables it to correspond more aptly and quickly to the local wants of trade than a wholly metallic circulation, constituting a part of the general money supply of the world, and subject to draft, and even to drain, from outside.

The second school concur with the first in holding to elasticity as a property of bank money, but

declare the effects to be in a high degree prejudicial. They maintain that, while local issues are increased with an increase of demand, they are not certain to be reduced correspondingly with a reduction of demand. Moreover, that when increased with an increase of demand, they are apt to increase extravagantly, exciting to speculation, overtrading, and disproportioned or distorted production. In other words, to the elasticity of bank money, which they concede as a fact, the writers of this school attribute, though in a greatly qualified degree, the evils of inconvertible paper money, a loss of the automatic regulation of the volume of money, and a tendency to abnormal fluctuations of supply. This is the school of Geyer of Germany, of Wolowski and Rossi of France, of Lord Overstone, Mr. Norman and Sir R. Peel of England, of Mr. Condy Raguet and Prof. Amasa Walker of the United States.

It was under the influence of this school, known in England as the Currency School, that the English Bank Act of 1844 was passed.

The third school concur with the second in holding that any action whatever of bank money otherwise than as metallic money would act under the same circumstances, must be wholly of evil; but they differ entirely from that school as to the practicability of such divergent action, declaring with Professor Price that "an expanded or inflated currency of bank notes is an absurdity—nothing better than pure nonsense." This is the school of Tooke and Mill, known in England as the Banking School.

In a word, the first school hold elasticity of circu-

lation to be both practicable and desirable ; the second hold it to be practicable, but eminently undesirable ; the third hold it to be neither desirable nor practicable, and hence not to be feared or guarded against.

The arguments and historical illustrations by which these conflicting principles are maintained will be brought out to view in tracing the history of Bank Money in England and the United States.

CHAPTER XI.

ENGLISH BANK MONEY AND THE ACT OF 1844.

THOUGH the Bank of England was chartered in 1696, it was not until 1759 that it issued notes below £20, the price of a pair of good farm horses; nor was it much before the close of the American Revolution, according to Sir Henry Parnell, that any considerable extension of paper money banking took place.

In 1793 came war with revolutionary France, endangering, as war always endangers, the convertibility of the paper circulation. For three years, however, hostilities continued without the suspension of specie payments, or much apparent apprehension of that result on the part of bankers or the public. In 1796 Pitt borrowed heavily of the bank for war expenses, and, to the great distress of the directors, postponed the promised repayments. The management, brought to extremity, began to contract the circulation. At this juncture came a rumor of French invasion, and a squadron of the enemy's fleet, driven, as afterwards appeared, by stress of weather, was seen off the coast. A run on the country banks ensued, which caused them to make heavy demands on the Bank of England.

By the end of February the specie of the bank had

been reduced to a very low point, when an order in council forbade the directors to pay further in specie till Parliament should have an opportunity to act. In May, that body by law restrained the bank from specie payments, the bank being placed in the attitude of desiring to pay, but not being permitted.

There is very high authority for questioning the necessity of the suspension of specie payments at the time it took place, in 1797.

Mr. Tooke says:

> "I do not think the suspension of cash payments was at that time of absolute necessity. I have never entertained the least question but that, if the Bank had continued to pay, and to suppress its notes as it issued treasure, the crisis would have been got over."

Mr. Ricardo says:

> "If the Bank had continued paying in cash, probably the panic would have subsided before the coin had been exhausted."*

Whether suspension would have come at a later period in the long and exhausting wars with France, had it been put off in 1797, is a question not to be answered with much assurance. It is a notable fact that, from 1796, when the revolutionary money collapsed, down to 1815, during twenty years of unexampled fighting, France, on her side of the Channel, maintained specie payments intact, and refused altogether to resort to paper money.

* The run on the Bank of Ireland was over before the order to suspend was received, and the directors obeyed unwillingly.

Although England by the Restriction entered upon a career of inconvertible paper money, the prudence and firmness of the management of the Bank during the first twelve years prevented any considerable increase of issues. But moderation in paper issues, as we have seen, does not, however long continued, form a political habit which constitutes a security against excess. In 1809 appeared a wide divergence between the mint price of gold and its market price in bank notes. This divergence Parliament attempted to restrain by laws against the melting and exportation of coin.

Economists have been too apt, in accordance with their general view of the impotence of law to affect value, to speak of these acts of Parliament, aimed at the premium on gold and the melting down of coin, as absolutely nugatory. Mr. Fullarton has shown grounds for believing that the laws did in a considerable degree attain their object; and even Mr. Mill feels bound to say:

"The effect of the prohibition cannot have been so entirely insignificant as it has been supposed to be by writers on the subject."

But while law may be effectual in some degree to influence value by first influencing either supply or demand, yet when government sets itself squarely to oppose powerful economical currents, it is almost always foiled or defeated. The discount on the Bank of England note, in comparison with metal money, continued, and the divergence between the market and the mint price of gold grew wider. The mint price of an ounce of standard gold (eleven

twelfths fine) is £3 17s. 10½d. In 1811 the market price had risen to £4 4s. 6d.; in 1812 to £4 15s. 6d.; in 1813 to £5 1s.; in 1814 to £5 4s.

The rise of prices and the perturbations of exchange which resulted from this depreciation of the paper money of England, no longer convertible into coin, led to the ever memorable Bullion Controversy, which was opened by the publication of Ricardo's pamphlet on the High Price of Bullion, in 1809, followed by the appointment of the Bullion Committee of the House of Commons the following year.

In July, 1810, the Bullion Committee made their report. The views presented were those of Mr. Ricardo, the hard money doctrine at its hardest. The report itself, for so famous a document, is not well done. The chairman of the committee, Horner, says:

> "The report is, in truth, very clumsily and prolixly drawn, stating nothing but very old doctrines on the subject it treats of, and stating them in a more imperfect form than they have frequently appeared in before. It is a motley composition by Huskisson, Thornton, and myself, each having written parts, which are tacked together without any care to give them a uniform style or a very exact connection."

The power of the Bullion Report was in those "old doctrines;" in the names of Horner, Huskisson, and Thornton, which were appended to it, and in the circumstances under which it appeared.

The report was attacked both in and out of Parliament by two parties, professing very different views; one the Bank party, which denied the fact

of depreciation; the other the inflation party, which only regretted that the depreciation was not greater.

The conflict of the Bullionists with the Inflationists belongs to the history of inconvertible paper money. Not an argument has been advanced by the same party in the United States, during the debates of the past twelve years, which was not brought to bear against the Bullion Report in 1810 and 1811. The doctrine of Ideal Money was developed in all its completeness by statesmen in Parliament, and by Fellows of the Royal Society through the public press. Then it was first declared that "measures are all in their nature purely abstract;" that "the gold is no more essential to the guinea than the brass or ivory of the ruler is to its inches . . . ;" that "paper, as the mere abstract expression of value, is likely to be more uniform in value than gold;" that "the abstract idea of a pound will be far more uniform in value than any fixed quantity of gold or silver;" that "whatever in itself possesses an embodied form and an intrinsic value must, as a material commodity, be subject to variation," and that it is the very attribute of intrinsicality which necessarily imposes the quality of variation. "It is the ideal money only," said one writer, "which admits of invariable value, because it is not formed of substantial, and therefore variable, materials."

But it is with the Bullionists in their controversy with the Bank party that we have here to do. The directors and friends of the Bank assailed the re-

port, denying the alleged depreciation of its notes. They asserted that the Bank had issued its notes only upon the actual demands of trade, and by legitimate discount of bona-fide business paper: good bills only, at short date, three months, for real transactions, at a uniform rate of five per cent; which they declared constituted a sufficient security against excess. This had been the principle of the management before the Restriction, and the fact of the suspension of specie payments did not, in the opinion of this party, which included the Governor and Deputy Governor of the Bank and the Chancellor of the Exchequer, require the adoption of any other test for determining the amounts of paper required for the uses of commerce. Judicious discount—good banking—was to be the one rule to govern the amount of paper money. Let the notes go freely out, whenever called for in the course of legitimate trade, through the discount of good bills on short terms at a fair rate of interest, and the amount of notes left outstanding at any time will be according to the real occasion for their beneficial use. If more be issued, the reflux—the flow of notes back into the Bank—will be quickened correspondingly. Between the Bank party, who denied the existence of depreciation, and the Inflationists, who only wished the depreciation were greater, the resolutions offered by the Bullion Committee had from the first small chance of success. They were severally rejected by a majority ranging from two thirds to four fifths, and the counter resolutions of Mr. Vansitland were adopted by the House, the second, which

declared, in the face of a premium of from fifteen to twenty per cent on gold, that bank notes "have hitherto been and are at this time held in public estimation to be equivalent to the legal coin of the realm, and generally accepted as such in any pecuniary transactions to which such coin is lawfully applicable," receiving a more than two-thirds vote.

The Bullionists were defeated; but the force with which their doctrines had been presented both in Parliament and through the press profoundly influenced the public mind; and during the eight succeeding years those doctrines won their way to the general conviction of the people of England.

The war closed in 1815. The average paper price of gold, which had stood at £5 4s. per ounce in 1814, sank to £4 13s. 6d., where it remained through 1816.* In 1817 occurred a further fall in the premium, until there took place what Mr. Tooke calls "a spontaneous readjustment of the value between gold and paper to a perfect equality."

The directors of the Bank now voluntarily undertook to pay specie for all their one and two pound notes bearing date prior to January 1st, 1816. This offer aroused little interest, and scarcely £1,000,000 was drawn out. Encouraged by the result of this partial experiment, and deeming specie payments permanently established, the management announced that they would pay gold for their notes of all denominations issued before January 1st, 1817. From this position the bank was obliged to recede.

* This was the year of the adoption of the Single Gold Standard.

A demand for gold at once sprang up which drained away £5,000,000, and threatened speedily to exhaust the entire reserves. In this emergency the government came to the rescue; and Mr. Peel in two nights carried a bill through the House restraining further payments.

What was the cause of the advance of the gold premium after the partial resumption of 1817?

The Bank view was that the bullion operators stepped in, and carried off the gold so soon as payment of large notes was offered.

But what made it for the interest of the dealers in bullion to take gold away? The exchange was unfavorable. But why, persist the Bullionists, were the exchanges unfavorable?

Professor Sumner thus states the Bullionist argument:

"The balance of imports and exports never can move the exchanges either above or below par more than just enough to start a movement of bullion. On a specie system, any outflow of bullion would bring down prices and immediately make a remittance of goods more profitable than one of bullion, and if the exportation of bullion was artificially continued (as, for instance, to pay the expenses of a foreign war), it would reduce prices until a counter-current would set in and restore the former relative distribution all the world over. . . . If, therefore, there is an outflow of gold, serious and long continued, accompanied by an unfavorable exchange, it is a sign that there is an inferior currency behind the gold which is displacing it.

"The surplus of imports of goods above the exports of goods is nothing but the return payment for this export of gold, and is not a cause, but a consequence. If, finally, we want to turn this tide and produce an influx, there is only one way to do it, and that is simply to remove the inferior currency. As for

waiting for the balance of trade to turn and bring gold into a country which has a depreciated paper currency, one might as well take his stand at the foot of a hill and wait for it to change into a declivity before climbing it."

Now this is the familiar doctrine of Ricardo, in all its strictness. That doctrine contains a truth of great importance; but not a little discretion is required in applying it to particular cases. The state of the circulating medium is, as we have frequently noted in the course of these discussions, of very great influence on the foreign trade of a country. An excess of money raises prices; makes a country a good country to sell to and a bad country to buy from, and thus diminishes export and increases import. But this is not the sole cause which has potency within the field of commerce. An inflated paper circulation may be operating in this direction, while yet other causes—wars, famines, vast military expenditures, revolutionary improvements in the arts of production or transportation—may be steadily, and in the end successfully, working to induce a contrary movement.

Professor Sumner says that one might as well take his stand at the foot of a hill, and wait for it to change into a declivity, as a country wait for the balance of trade to bring in gold, so long as it has a depreciated currency.

But we have seen just this miracle wrought within the past three years. We have seen not only our own gold product retained almost entire—which, as we are the great gold producing nation of the world, and as our distributive share of our own gold

would be but a small fraction of our annual product, is equivalent, in economical principle, to a large importation—but also foreign gold actually flowing to our ports, in spite of a "depreciated paper currency." The cause which Professor Sumner indicates has indeed been operating to diminish our merchandise exports and to increase our imports of foreign goods; but, on the other hand, the astonishing development of our productive powers, in both agriculture and manufactures, during the past five years, with the effects of war and failure of crops elsewhere, has enabled us to rise above this self-imposed disability, and sell a wholly unprecedented amount of our domestic products abroad, taking our pay in what we pleased—in foreign goods, in our own government bonds, or in gold for the reserves of our banks or of the national treasury.

But for this fortunate cause working in counteraction of our depreciated and fluctuating paper money, resumption would not have been so easily accomplished, or perhaps not accomplished at all.

But to return to England in 1817. Whatever the cause of the drain of bullion, whether the failure to contract the paper circulation, as alleged by the Bullionists, or the large loans negotiated in England for the French and Russian governments, as alleged by Mr. Tooke, the effort at complete resumption in that year was unsuccessful, and the year 1818 brought a severe commercial crisis and numerous failures occurred, which again compelled the attention of Parliament and the country to the subject of the Restriction. Each House appointed a commit-

tee, which conducted a separate investigation. The views of the Bullionists prevailed against strong opposition from "the City," where the effects of resumption were greatly dreaded; and in spite of remonstrances from the management of the Bank, the Commons Committee reported a bill, based on the doctrines of the report of 1810, which became law under the energetic leadership of Mr. Peel.

This memorable bill provided that the Bank should deliver gold for notes on demand, at a rate diminishing from year to year, till it should reach in 1823 the mint rate of £3 17s. 10½d. per ounce. By the same act, the laws which restrained the exportation of gold and silver, and prohibited coin from being melted, were repealed.

After the passage of Peel's act, whether in consequence of it or not, the premium on gold fell even faster than was necessary to meet the successive requirements of the law. In February, 1819, gold had been worth £4 1s. 6d.; February, 1820, it sold at £3 19s. 11d.; February, 1821, it was worth only the mint price, £3 17s. 10½d.; and on May 1st, 1821, the Bank, in advance of the date fixed, resumed cash payments.

The influence of the debates which preceded resumption, and of the manner of its accomplishment, upon the public sentiment of England, in respect to the whole subject of paper money, was immense. In 1819 closed what Lord Overstone calls "the Dark Age of Currency." Peel's act was a defeat, not only of the Inflationists, but of the party which had held that only good banking was necessary to give the

country good money; that the volume of bank notes did not require to be regulated by any rule; but that the discount, at fair rates on short terms, of good paper based on real transactions, was alone required to secure not only the Bank, and not only the Bank and the noteholder, but also the community at large, from any injurious effects of paper issue.

Logically, indeed, this was not involved in the act of resumption or in the mode of its accomplishment. But the Bank party had, alike in 1810 and 1811, during the bullion debates, and in 1819, in opposition to Peel's bill, bound their cause up with that of inconvertible paper. The board of directors had made the issue squarely with the government on the matter of resumption, and on the 25th of March, 1819, sent to a Parliamentary committee the following resolution:

"This court cannot refrain from adverting to an opinion strongly insisted on by some, that the Bank has only to reduce its issues to obtain a favorable turn in the exchanges, and a consequent influx of the precious metals. This court conceives it to be its duty to declare that it is unable to discover any solid foundation for such a sentiment."

This "sentiment" had, however, taken a strong hold on the public mind of the kingdom, and that hold was strengthened by discussion from year to year, till, in 1827, the court of directors formally rescinded the resolution of 1819, an act as significant in the history of British finance as the expunging resolution of Benton in the history of American politics.

In 1832, the Bank was obliged to come before Par-

liament, and ask a recharter. The growth of opinion in the direction of treating the note issue no longer as the concern of the Bank itself, but as a matter of public policy, and as a matter demanding more of security against perversion and abuse than was to be found in the mere observance of self-interest by the Bank, had been very marked. In almost complete opposition to the views maintained by the direction in 1819, the directors of 1832 admitted the principle that the issues ought to be regulated in amount with constant reference to the state of the foreign exchanges ; and that the increase or diminution of gold in the Bank was to be taken as the only certain and safe test of the favorable or unfavorable state of the exchanges. Consequently, the amount of paper issues was to be made to vary with direct reference to fluctuations in the amount of bullion in the Bank. It is significant, as showing the thoroughness with which the so-called currency principle had come to be accepted, that from the recharter of 1832 dates the publication of the accounts of the Bank.

The banking school—that school which held that only good banking is needed to give the people good money ; that the quantity of the circulation needs no attention, provided only convertibility is enforced ; that the operation of the Reflux will be sufficiently prompt and sure to prevent any excess of issues, and hence all possibility of depreciation : in a word, that paper money convertible on demand into coin must act in every respect precisely like metallic money—this school had suffered defeat.

The currency school, on the other hand, had triumphantly established, so far as the sanction of Parliament and the professed policy of the Bank were concerned, the principle for which they contended, that, wholly beyond the interest of the Bank and the interest of the noteholder in the matter of Bank money, was the interest of the general public; that paper money might be issued without danger of any failure to redeem on demand, and yet at the risk of inflation and subsequent depreciation, to the disturbance of domestic prices and foreign exchanges. To this ground even the management of the Bank had been brought.

But the economists of the currency school were not yet satisfied. In their view, the position of the Bank relative to the money supply of the kingdom, was exceedingly unsatisfactory. "The banking reserve was a vague and undefined quantity. It was the power of issuing any amount of notes until the gold was finally exhausted," while "a reduction of deposits was deemed a sufficient set off against a reduced amount of bullion."

It was, therefore, deemed to be very desirable that the constitution of the Bank of England should be altered, so that the specie or bullion reserve should stand against the note circulation, while the equilibrium of income and outgo, through deposit and through discount, should be maintained by the simple observance of the rules of good banking. The divorce of the two departments, therefore, became the demand of this school.

"A repeal of the Union," Lord Overstone wrote in 1840,

"is essential to good government in monetary affairs. The common crown may still rest upon the brow of the sovereign of Threadneedle Street, and she may be permitted to wield one sceptre of authority over her separated departments. But she must consent to hold a Committee of Treasury in the Bullion Office, as well as in the Discount Parlor, and must govern them through the instrumentality of a distinct system of laws appropriate to each and in harmony with their respective purposes. The interest and well being of the one must no longer be interfered with or endangered by influences or affections connected with the other."

The views of the Overstone economists found expression and realization in the act of 1844. By that act the banking and the issue departments of the Bank of England were completely separated, each to be administered "through the instrumentality of a distinct system of laws," neither, so far as the framers of the act are able to provide against it, to be "interfered with or endangered by influences or affections connected with the other." By the act of 1844 the issue department of the Bank of England is allowed to put forth £15,000,000* of notes, on its securities alone, without specie. But for every other note which the bank may put into circulation an equal amount of coin or bullion must be paid in. Nor is it for the directors to say whether more notes shall thus issue or not. The bank is bound by law to buy bullion from whomsoever offers it, at £3 17s. 9d. per ounce.

* Originally £14,000,000, but on provincial banks existing in 1844 ceasing to issue notes, it is provided that the Bank may be authorized to take up two-thirds of such lapsed circulation. Under this provision the secured issue has risen to £15,000,000.

In these provisions respecting note issue we have the second grand feature of the act of 1844, viz., the establishment of the paper circulation upon a basis which, in the view of the economists of the currency school, would secure the exact conformity of its movements, whether in rise or in fall, to those of metallic money. The amount of secured circulation being fixed at an amount below which, it is fairly to be taken for granted, the currency could not in any event be reduced, the whole fabric above that is built up out of specie. Not a £5 note can be put out by the issue department of the Bank unless a corresponding quantity of bullion has been deposited in its vaults.*

The country, it was assumed, would in any contingency require at least £15,000,000 in Bank of England notes. If more notes were needed, more could be had in just the same way (and hence under just the same conditions) as that in which more metallic money is obtained, viz., by importation.

* Three times since 1844 the Government has authorized the Bank to issue notes without bullion in excess of the £15,000,000 of "uncovered circulation" allowed in the Act. The Bank has but once availed itself of the permission, viz., in 1857, and then to the extent of only £800,000.

This principle of limiting the uncovered circulation has been adopted in the new German Bank law, the Imperial Bank being authorized to issue 250,000,000 marks and the other banks 135,000,000, in excess of the specie held for redemption. The German law differs from the English in this, that issues in excess of the authorized uncovered circulation are not absolutely forbidden, but are restrained by a penalty or tax on all such excess. The German method Prof. Jevons calls the "Elastic Limit System."

In Lord Overstone's view, this was free banking in the true sense :

> "If," he says, "the people bring in gold, they increase the circulation ; if they take out gold, they diminish it. In this respect they are perfectly free agents ; neither law nor authority interferes with them ; and thus the regulation of the amount of the currency is strictly in the hands of the public."

The two provisions of the act of 1844, just recited—the separation of the banking and issue departments, and the basing the paper circulation, above a certain arbitrary minimum, upon cent-per-cent of bullion deposited—have been and still are fiercely disputed ; but that act contained a third feature which has met general acceptance, viz., the regulation and restriction of the issues of the country banks. This measure was warmly approved by the economists of the currency school, because they found in the country issues the main source of excessive inflation and contraction. Even the economists of the banking school could not challenge this measure, because, while they held that good banking alone was necessary to give the people good money, they were ready to concede that the country banks had not generally observed the rules of good banking. In the language of Professor Price :

> "They were bad makers, bad manufacturers (of paper money) ; unfit to be trusted with the work ; as bad as a mint whose sovereigns could never be relied upon for quality."

The provisions of the act of 1844 relating to the country banks restrict their circulation to that which they enjoyed on the average before that date.

No London bank can issue any notes, nor can any bank which has been chartered since May 6th, 1844. Irish and Scotch banks are permitted to issue notes above their circulation in 1844, provided that for every note so issued they possess a corresponding amount of coin.

The act of 1844 has been the subject of passionate controversy. Mr. Bagehot makes the animosity which subsists on this subject the excuse for omitting all discussion of it from his interesting work, "Lombard Street":

"If," he says, "you say anything about the act of 1844, it is little matter what else you say, for few will attend to it. Most critics will seize on the passage as to the act, either to attack it or defend it, as if it were the main point. There has been so much fierce controversy as to this act of Parliament, and there is still so much animosity, that a single sentence respecting it is far more interesting to many than a whole book on any other part of the same subject. Two hosts of eager disputants ask of every new writer the one question, Are you with us or against us? and they care for little else."

How has the act worked? Has it done what the economists of the currency school expected of it?

Its object, be it remembered, was to cause the withdrawal from circulation of bank notes in quantity exactly equal to the gold withdrawn from the Bank. If bank notes were issued in excess, prices, it was argued, would rise, imports would be increased, merchandise exports diminished, and an outward flow of gold would begin. The gold would have to be taken either from the metal circulating

in the community or from the reserves of the Bank, whence, however, it could only be drawn by the surrender of notes in circulation. In either case the desired reduction of the money supply would take place, prices would descend to the plane of international exchanges, and the proper relations of import and export would be re-established.

The Bank directors had, as we saw, declared in 1832 their purpose of regulating the note issues with reference to this principle. The act of 1844, it was believed, would secure this result, even against the negligence of the management.

In less than three years after the passage of the act, an occasion arose which tested the scheme of Lord Overstone and Sir Robert Peel. The wholesale conversion of circulating into fixed capital during the railway mania had been followed by the failure of crops which resulted in the great famine. In September, 1846, a persistent drain of bullion commenced which lasted eight months without relief. Whether from acquiescence in the opinion that the automatic operation of the Bank act would effect all that was required by the situation, or from indifference, the directors allowed the drain to proceed without taking measures to check it, only raising the rate of discount in January, 1847, to three and one half per cent, a little later to four per cent, only reaching five per cent when the reserve was nearly exhausted.

What meanwhile was the course of the circulation and of the bullion?

Mr. McLeod gives the following figures:

	Notes held by Public.	Notes held in Reserve by the Bank.	Bullion.
1846, August 29........	£20,426,000	£9,450,000	£16,366,000
November 7......	20,971,000	7,265,000	14,760,000
1847, January 9........	20,837,000	6,715,000	14,308,000
" 30.......	20,469,000	5,704,000	12,902,000
March 6..........	19,279,000	5,715,000	11,596,000
April 3..........	19,855,000	3,700,000	10,246,000
" 10........	20,243,000	2,558,000	9,867,000

"These figures," says Mr. McLeod, "show the utter futility of the idea that as the bullion diminishes, the act could compel a reduction of notes in the hands of the public, for the notes in circulation were within an insignificant trifle as large in amount when the bullion was only £9,867,000 as when it was £16,366,000. . . . Whence did this failure arise? From this very simple circumstance: The framers of the act supposed that there is only one way of extracting gold from the Bank, namely, by means of its notes, and that if people want gold they must bring in notes; and consequently, as the gold comes out, the notes must go in.

"In fact, instead of withdrawing the notes from the public, as was intended by the act, the directors threw the whole effect of the drain of gold on their own reserves; and that happened in this way: The public has two methods of drawing gold from the banking department, namely, by notes and checks; but the banking department has only one method of drawing gold from the issue department, namely, its notes in reserve. And when the Bank felt a drain on its banking department for gold, it had to replenish it by giving up an exactly equal amount of notes, and thus the whole drain fell on its own reserves."

Shall we conclude that the act of 1844 is a failure because it does not, according to the expectation of its founders, secure, irrespective of the action of the directors, a reduction of the amount of notes in cir-

culation corresponding to the reduction of the bullion in the Bank, during a foreign drain?

It appears to me that on the principles of the currency school of economists, the Bank act may still be defended. Its merit is to be found in its influence upon the circulation, not in crises, but in times of prosperity:

"Fluctuations to a greater or less extent," wrote Mr. Tooke in 1826, "are inseparable from the course of commercial affairs. The business of production, or supply, proceeds wholly upon anticipation; it is dependent on the seasons and on an endless variety of casualties; while consumption, or demand, may be influenced by changes of habit, fashion, legislative enactments, and by political events. The contingencies which may excite a spirit of speculation and enterprise on the one hand, and disappoint expectation and defeat calculation on the other, are therefore innumerable."

The advocates of the currency principle, who maintain that there is a liability to excessive issues of paper; that when speculation is once on foot the public will receive and retain a larger amount of bank notes, which, entering into the circulation, will raise prices and still further stimulate the speculative impulse, inducing overtrading and disproportioned production, may yet fairly claim for the act of 1844 a salutary influence in restraining issues during the times when speculation is insidiously preparing future convulsions of trade and industry.

For myself, admitting, as I am disposed to do, the possibility of issuing and maintaining notes in excess under speculative excitement, just as more of a certain salt may be held in solution by water when hot than when cold, I do not see that the ad-

vocate of the currency principle is logically bound to hold that because inflation has caused a drain, a panic, or a crisis, therefore contraction at the time is necessarily the proper treatment. The surgery of the middle ages attributed to the weapon which had inflicted the wound a peculiar efficacy in performing the cure; but we have been accustomed to regard this as a superstition. Even if paper money did the mischief, it is, in the presence of a panic, of no more consequence than the knife which gave the cut from which the patient lies bleeding. The knife will be of great interest to the coroner. It is worth nothing for the purposes of the physician.

The management of a panic, as Mr. Bagehot sagaciously said, is primarily a mercantile problem. A panic implies sometimes previous overtrading and the distortion of productive industry; sometimes the unduly rapid conversion of circulating capital into fixed capital of limited uses or not infrequently of no use at all.

Paper money may or may not, in the given instance, have contributed to this result; but however it came about, the only thing that can be done when panic once begins is to spread the strain as widely as possible. This is done by borrowing.

At the moment to reinforce the parts which have been weakened by such disturbance of relations between fixed and circulating capital, or between the different classes of circulating capital, and in time to distribute the strain as far as may be over the entire system—this is the problem in a panic.

It is to be done, as has been said, by borrowing,

through the banking agency. Of course, what is borrowed must sooner or later be repaid; but the very salvation of the existing machinery of production and trade may depend on the ability to distribute the strain over a larger surface than that which was first attacked, and to give time for the forces of repair and restoration to operate.

Now, the facility of borrowing increases, other things equal, as the rate of interest rises. If, then, on the first occurrence of a panic, or the appearance of a persistent drain of bullion, the rate of interest can be sharply raised, the relief needed may be given in season. It is to this resource that the attention of the English financiers has been directed since it appeared that the automatic operation of the act of 1844 would not avail to stop the flow of gold. This is the meaning of those quickly successive advances of the rate of interest by the Bank of England which follow the first indications of an unfavorable exchange.

The rate of discount may have been three per cent for the previous six months; but all at once the cable announces four per cent, and, in rapid succession, five, six, seven, eight, nine, ten, eleven—any rate that is necessary to stop the outward flow of gold.

Why does gold cease to flow out of the kingdom? If foreign creditors have the right to demand it, why do they forego their claims? Because the high rate of interest makes it better worth while to leave the capital or the money in England than to carry it away. The foreigner, instead of having the amount

of his claim shipped to him in bullion, buys a sixty days' bill with it, to get the advantage of the high rate of interest.

"When," says Mr. Goschen, "the resources of a country are crippled for the moment and its debts increased, it is most desirable, and indeed absolutely indispensable, that not only bankers and merchants, but also the public at large, should clearly understand how quick and effectual a relief may be afforded by a high rate of interest. . . . The efficacy of that corrective of so-called unfavorable exchanges has been most thoroughly tested since the Bank of England has adopted the system of varying its minimum rate of discount more rapidly and more extensively than was its practice in former years. The fact has been that almost every advance in the bank rate of discount is followed by a turn of the exchanges in favor of England. . . . Foreign creditors give their English debtors a respite, and prefer to wait longer for remittances, gaining interest meanwhile at the profitable English rate."

CHAPTER XII.

BANK MONEY IN THE UNITED STATES.

IT has been said that in the American mind the idea of banking is intimately connected with that of the issue of paper money. To the masses of our people in the past, the bank was known through the bank note; and in their view the bank existed for the sake of the note.

While this still remains in a great degree true, the other functions of banking are now much better understood in this country than formerly. This is partly due to the influence of discussion, partly to the rapid growth of the deposit and discount business which has forced upon the public mind something like a just apprehension of the importance of that office of the bank in modern industrial society. As we go backward in our economical literature we find the issue function more and more magnified until we reach a point where almost the sole reason which was recognized for the existence of a bank was the manufacture of paper money. We get a strong impression of this disproportion between the several banking functions as they were viewed in the earlier times, when we read in the work of Mr. Condy Raguet, no warm friend of paper money, the following remark:

"In regard to a bank of discount, it would scarcely be worth while for a company to become incorporated, or pay the rent of a banking house and the salaries of a number of officers, to do that which the individuals themselves could do by the employment of brokers at a much lower expense."

If we try to imagine a writer of Mr. Raguet's candor and intelligence penning such a sentence in this day, we shall be struck with the advance which has taken place in the banking of the country within the past forty years.

Undoubtedly the freedom with which the privilege of issue was formerly granted, and the patience with which the abuses of issue were borne, were due in some degree to the general belief that the other advantages of banks, exchange, safe deposit, discount, were only to be obtained by conferring the power to manufacture paper money. The profits of issue were to support the bank, which should, in turn, perform certain services to the public of great utility, for which alone, however, the bank would not have been created.

The early history of paper money banking in the United States is not pleasant reading. The most ardent admirer of the industrial and political genius of our people must pause at this point. The worst faults of the national character here made their worst manifestation—haste to be rich; impatience of slow gains and small economies; recklessness of reputation; contempt for legal restraints and disregard of official responsibility. Even the very virtues of our people had in them something inimical to good banking. The adventurousness of the national dis-

position, the superiority to routine, the readiness to welcome new men and new measures—these, which gave so much of freedom and force to our early industry and commerce, did not prove favorable to our banking system.

In no department of economical activity do character and reputation in the long run count for so much, and smartness for so little, as in banking. The establishment of a bank which shall be sound and enduring is, of necessity, like the planting of a slow growing tree, a work of faith and sacrifice. Inducements to seek immediate gains by dangerous ventures or questionable devices must be sternly repressed, and the present strictly subordinated to the future.

In addition to the influence of the special traits of our national character on our early banking system, three features of the system itself tended to impair if not at times wholly destroy the convertibility of the bank circulation, and to engender in no small degree the evils of fluctuating, irredeemable paper.

The first was the fact of competition in issues. We have seen that the English economists are divided on the question whether bank money can be put out and kept out in excess of the amount of metallic money which would otherwise have circulated in the community. Manifestly if such excess in issue is possible, it will be greatly facilitated by competition among issuers.

Professor Jevons has recently given the great weight of his authority on this side :

"When prices are at a certain level and trade in a quiescent

state, a single banker is, no doubt, unable to put into circulation more than a certain quantity of bank notes. He cannot produce a greater effect upon the whole currency than a single purchaser can by his sales or purchases produce upon the market for corn or cotton. But a number of bankers, all trying to issue additional notes, resemble a number of merchants offering to sell corn for future delivery; and the value of gold will be affected, as the price of corn certainly is."

It was to the competition of the country banks that the economists of the currency school attributed the principal motive force in the alternate expansions and contractions of the money supply prior to 1844.

The efforts of the bankers to increase their circulation were notorious. Mr. Wakefield testified before the Agricultural Committee of the House of Commons, in 1821, that "up to 1813 there were banks in almost all parts of England, forcing their paper into circulation at an enormous expense to themselves, and in most instances to their own ruin. There were bankers who gave commissions, and they sent persons to the markets to take up notes of other bankers." This evil was practically removed in England by the provisions of the act of 1844, which forever arrested the country bank circulation at the point at which it then stood. In the United States, the same competitive principle was in operation to swell the issues of the banks in good times; and the devices taken by the English bankers to put out their notes lost nothing, it may easily be believed, when practised by Yankee directors. "Some new writer upon the wealth of nations," said Mr. Charles Francis Adams, in 1837, "might make an edifying chap-

ter by explaining, in more detail, all the tricks that have been resorted to for the purpose of puffing-up the circulation." Enterprising banks sent agents great distances to exchange their notes at hotels, stores, etc., for those of other banks. Mr. Raguet refers to the practice of loaning notes with the express understanding that the borrower was not to put them into circulation within a certain distance of the place of issue.

It was by one party expected that the second Bank of the United States would perform the high office of regulating the circulation by refusing to receive the notes of distrusted or discredited banks; but, whether from lack of powers, from the faults of its constitution, or from the malignity of fortune, it is certain that the bank had but a slight influence in restraining the tendency to excess. The democratic party were even able to allege that the bank added to the impulse to expansion. President Van Buren, in his message of 1839, arraigns the bank in these terms:

> "At every period of banking excess it took the lead. In 1817 and 1818, in 1823, in 1831, and in 1834, its vast expansions, followed by distressing contractions, led to those of the state institutions."

The second feature of the paper money banking of the United States which militated against convertibility and produced excess was the issue of small notes. The public sentiment of England had been strongly set against small notes by the experience of the commercial and banking community in the panic

of 1825. In his tract on the currency, written the year following, Mr. Tooke said :

"There is one part of that circulation which ought not, upon any footing, or with any modification, to be any longer tolerated. I mean the notes under £5. These are, in every point of view, a most objectionable medium of exchange. They offer greater facilities for being issued in excess than notes of a higher denomination; and they almost invariably exclude specie entirely from the districts where they pass current."

It is well known that since that time notes of less than £5 ($25) have been suppressed in England. The Irish and Scotch banks issue paper down to £1 ($5). In the United States, however, bank bills for $2 and $1 have always constituted a considerable element of the circulation, and during certain periods of our history the passion for paper money carried the issues down to notes for fifty and even twenty-five cents.

The objections to small note issues are three: first, they are, as Mr. Tooke says, more liable to be issued in excess than larger notes, being at best but imperfectly convertible into coin, the holder being, from poverty, ignorance, or distance, unable in fact to present them for redemption.

Second, the circulation among the masses of the people of coin which would be displaced by small notes constitutes the best reserve for the banks issuing notes. The sovereigns and half-sovereigns circulating in England always vastly exceed in value the notes issued by the Bank of England and by the country banks. The value of the pieces of five, ten, and twenty francs circulating in France is two, three,

or four fold that of the paper issues. In a country whose circulation is thus "saturated with specie," to use the phrase of Mr. Baring, the bullion reserve of the bank or banks can very quickly be replenished. The banks' customers, the shop-keepers and dealers, are constantly in receipt of gold and silver; their drawers are full of metal money; a very slight premium offered, or even merely an intimation of preference, will suffice to bring in almost any amount of it.

Every bill of a low denomination which is issued not only diminishes the amount of specie thus subject to the draft of the bank, but increases the amount of paper which the bank is liable to have to redeem in coin on demand.

The third objection to small note issues stands in very close connection with the second, namely, that while the small notes are, as stated under the first head, very imperfectly convertible, being peculiarly liable to be put out and kept out in excess, in ordinary times, owing to the want of information on the part of the holders, or their inability to present the notes for redemption promptly at the proper place, this portion of the bank issues is also in time of apprehension the most dangerous element of the circulation, since the small notes are largely held by the uneducated, who are the first subjects of panic.

"The issue of small notes," said Mr. Horsley Palmer, "renders the bank liable to a very great sudden demand. The holders of small notes are the lower orders of the people, whose fears are more extensively operated upon in times of distrust."

It was the testimony of the officers of the Bank of

England that this portion of the issues was the main source of danger in 1825.

This objection has almost indefinitely less force in the United States than in any other bank money country, inasmuch as the number of the uneducated is here so small, and also because Americans are in a remarkable degree free from the liability to panic.

The third feature of American paper money banking which militated against convertibility in the time of which we speak, was the want of any traditional habit, maintained by the force of a strong public sentiment throughout the banking community, for the due exchange of notes between the banks.

We have seen that the writers of the banking school in England hold that good banking alone is needed to give the people good money; that regulation of issues by the state is not required in the interest of a sound monetary circulation, convertibility alone being sufficient to keep the amount of paper money down to the volume of metal money which would have circulated had the paper not been issued. But these writers use the word convertible in all honesty. They mean that the bank should stand ready in fact to redeem its notes in accordance with every demand which is liable to be made upon it from a community whose every member feels perfectly at liberty to make his choice between paper and gold, without any reason therefor being given or asked. To convertibility in this full sense these writers regard a system of mutual redemption as absolutely essential: otherwise notes of small denominations sent by the artifice of directors to dis-

tant localities will scarcely ever find their way back to the place of issue, however redundant they may become, since it can never be for the interest of an individual holder to take them in person or send them by an agent for redemption.

On this point, Mr. James Wilson, the founder of the *Economist*, in his work on Capital, Currency and Banking, wrote as follows regarding the American banks in the period under review :

> "By an agreement between the different banks they never called upon each other to pay their notes in specie ; and thus each bank always held large quantities of the notes of other banks for which they did not demand payment ; and such was the political prejudice against the payment of specie, that any private individual who demanded the payment of specie, to any large amount, was marked as a common victim by the banks."

There was, perhaps, no period, certainly no considerable period, when this statement of Mr. Wilson would have applied without qualification to banks in all sections of the United States. Yet it holds true in a high degree of the banks of the country as a whole during a large part of our financial history.

The earliest and most important effort to secure a prompt and regular redemption of notes was through a combination of Boston banks, which gave rise to the so-called Suffolk Bank system of Massachusetts, afterwards extended throughout New England, by which all the country banks were brought, through threats of outlawry against their circulation, to keep a deposit in the Suffolk Bank, ample to redeem their notes on presentation. The effect of this system, which became the great dis-

tinguishing fact of the New England paper money, was to give the bank notes of that section a wide acceptance all over the Union.

A little later, what had been accomplished by the action of the New England banks was sought to be secured by law in the State of New York. How far the provisions of the New York law fell short of securing that precise convertibility into coin which even the writers of the English banking school admit to be a necessary precaution against excessive issues, may be judged from the following remark of Mr. Knox, the Comptroller of the Currency, in his valuable report of 1873:

"Redemption, in the New York law, meant discount. It was to be a redemption in specie, and it was founded upon the avowed principle that specie was worth more, and was more desirable to hold, than the circulating notes authorized."

But there was more than the failure of the banks to call upon each other for the redemption of notes, which is, as we have seen, a condition of genuine convertibility in bank money. There was throughout many of the communities of the United States a public sentiment always unfavorable, and at times actively hostile, to the presentation of notes for redemption.

The natural pressure of trade upon the dealer or the laborer to cause him to receive bank notes without scrutiny of their character, is, at the best, so strong as somewhat to impair convertibility, even when no artificial obstacle is interposed.

"The taking of them in payment," says Prof. Price, "is not

so purely a voluntary act as the taking of a check. There is a kind of semi-compulsion pressing on the man to whom they are offered. No doubt there is always the remedy of demanding gold for them; but the habit of the world is against this process."

"Everybody knows," says Mr. McCulloch, in his Commercial Dictionary, "that whatever notes may be in law, they are, in most parts of the country, practically and in fact legal tender."

But there was more than the unavoidable pressure of trade to compel the citizen of the United States to take bank notes without scrutiny. "The habit of calling for specie," says Professor Sumner, "had never been formed, and it was steadily discountenanced by public opinion."

Of the power of public opinion, backed by just the suggestion of popular violence in case that opinion be disregarded, we have recently had a striking illustration in the practical exclusion of the greenbacks, during and since the war, from ordinary circulation on the Pacific coast. Though legal tender, no man dared to offer paper money for a debt contracted in gold; and all the large commercial transactions of that section went forward upon a gold basis, under the protection of a consolidated public sentiment which did not lose its power over the debtor in the face of a premium of one hundred and fifty per cent.

It is notorious that over very large sections of the country the bank money of the early days owed its circulation, in no small part, to the protection of a public sentiment as hostile to the presentation of paper for redemption in specie as was the public

sentiment of California hostile to the tender of paper instead of specie in the payment of private indebtedness.

"It was the catastrophe of the year 1824," said Albert Gallatin, "which first disclosed not only the insecurity of the American banking system, as then existing, but also that when a paper currency, doing away and superseding the use of gold and silver, has insinuated itself through every channel of circulation and become the only medium of exchange, every individual finds himself, in fact, compelled to receive such currency, even when depreciated more than twenty per cent, in the same manner as if it had been a legal tender."

The few legal provisions which in some States were enacted to hedge about the issues of the banks were often openly and even jocosely violated. According to tradition, the same coach that carried the bank commissioners on their visit of inspection sometimes had on the roof the kegs of specie which were to be certified as in the vaults of the bank, in compliance with law. The natural curiosity of the commissioners to see the town, the imperative necessity after so long a ride of stretching their legs, with all which that implies, gave an opportunity to get the kegs into the vaults before the anticipated visit. The half hour allotted by sacred, immutable American custom to dinner afforded ample time for getting the specie again on the roof of the coach, and commissioners and kegs went as they came, together.

Even the simple palpable consequences of insolvency, as they are known in almost every other country of the world, did not obtain in the United States.

Banks failed to pay specie on demand for their notes, kept on in business and declared dividends out of the interest on the money thus withheld from their creditors. In no other civilized country of the world would such a state of things have been tolerated.

"By convertibility of the paper," says Mr. Tooke in his History of Prices, "according to the ordinary signification of the term, when applied to bank notes in this country (England), is meant that the holder of a promissory note, payable on demand, may require payment in coin of a certain weight and fineness, and in the event of refusal on demand, such payment is enforced by law against the issuer to the utmost extent of his property. The issuer, whether a private or joint-stock broker, is considered to have failed. The circulation of his notes is at an end, and he is subject to the process usual in cases of insolvency."

Contrast with this the action of the American banks in a state of suspension, as described by Mr. Condy Raguet:

"Banks, when they default in their payments, not only never ask the indulgence of their creditors for any specified extension of time, but they do not even think themselves under obligation to pay interest to the creditors for the funds they forcibly detain from them; nay, they very frequently, in the midst of their insolvency, declare dividends of the very profits which actually belong to their creditors, who, and not the stockholders, are entitled to interest on the withholden funds. Except when legislative enactments have forbidden dividends under a suspension of payments, instances are extremely rare wherein a sense of justice on the part of the directors of banks has led them to refrain from such manifest injustice, and the consequence has been that a direct inducement is thereby created for taking no steps towards a resumption of payments."

Of course, in a country where such things could be done, much more in a country where such things were done frequently and without rebuke from law or public sentiment, it was rank nonsense to talk of convertibility :

"No person," says Mr. Fullarton, in his excellent work on the Regulation of Currencies, "who has given any attention to the evidence respecting the state of the American paper circulation, will venture to affirm that, even previous to the universal and spontaneous suspension of cash payments in May, 1837, that circulation was really and practically convertible."

As the joint effect of these several causes, taken in conjunction with the peculiarities, good or bad, of the national character which have been indicated, it came about that the paper money banking of the first half of our political life was perverted often to the great commercial and industrial injury of the country, often to purposes of absolute fraud. The range from recklessness of management to downright swindling comprised by far the greater part of the banking history of the United States down to 1840. The public indifference to this mischievous and scandalous state of things was largely due to a false popular philosophy which attributed a great deal of economical virtue to what people were pleased to call the "elasticity" of a paper circulation.

Elasticity is the property by which a body changes its form under pressure and recovers form after the pressure is removed. A band of rubber is elastic; but there is no more rubber in the band at one time than at another. There may be more of it in one

place at one time than at another, but for this reason there must be less of it in some other place. In this sense metallic money possesses elasticity in a high degree. No class of commodities yield more quickly under pressure or react more promptly. If an exceptional demand for metallic money, to serve the purposes of trade, arises anywhere, gold and silver respond with a promptness and an aptness which would be unattainable by more bulky articles. Just as soon as the exceptional occasion for their use in one place is over, the whole money mass redistributes itself instantly and unerringly. The total amount of money has not been increased by the special and local demand; but the body of money has changed its place, slightly or considerably, according to the force and persistence of the cause operating. Now this elasticity of the mass of metallic money is the quality upon which its highest usefulness depends; and the writers of both the great English schools, the banking school and the currency school, agree that bank money should operate in precisely the same way, or else it will become mischievous and engender evils outweighing all the benefits to be expected from it.

"A mixed currency of coin and convertible paper," says Mr. James Wilson, "ought to conform to the action of a purely metallic currency."

"We are willing," says Mr. Tooke, "to consider a metallic currency as the type of that to which our mixed circulation of coin and paper ought to conform."

"I consider," says Mr. Norman, "a metallic currency to be the most perfect currency, except so far as respects inconvenience, in some respects, and cost. In everything else a metal-

lic currency is the most perfect, and should be looked upon as the type of all other currencies."

But as the word elasticity has commonly been used in this country, it has had a wholly different signification. Those who demand an elastic paper circulation have in view a facility for the local creation of paper money, upon occasion, which shall save all necessity of drawing the extra supplies in from abroad. The local issues are to be in addition to the general supply of money; and as the new money is not to be drawn in from abroad by an exceptional demand, it appears at once that no force is provided which shall carry off the excess of money when the exceptional demand ceases.

Such a circulation is altogether beyond the sympathy of the political economist. Paper money imperfectly convertible works all the evils, though on a lower scale, of paper money where the pretence of conversion is not preserved. It impairs if it does not destroy the automatic regulation of the money supply; it involves trade in perpetual embarrassment; it disturbs and distorts production. There is no argument whatever for a paper money elastic in this sense, which does not tell equally in favor of inconvertible paper money, and no man can consistently favor the one who does not approve the other.

In 1790 there were three banks in the United States—the Bank of North America, in Philadelphia, which had been Robert Morris' bank during the last years of the Revolution, but had now gone under a Pennsylvania charter; the Bank of New York, in the city of that name; and the Bank of Massa-

chusetts, in Boston. In 1791 was chartered the first Bank of the United States, with a capital of $10,000,000, having power to issue notes payable on demand in specie.

It is a striking fact, and most characteristic of the public administration of those days, that though the act chartering the bank provided that a report of its condition should be laid before the Secretary of the Treasury whenever required, "but not oftener than once a week," the records of the Treasury Department do not show that any formal reports were ever rendered during the twenty years of its existence; and the only two balanced statements to be found are contained in letters of Secretary Gallatin, March 2d, 1809, and January 24th, 1811. One of these statements was manifestly trumped up after the date, as the following round numbers show:

Undivided Surplus	$510,000
Circulating Notes Outstanding	4,500,000
Individual Deposits	8,500,000
Due to other Banks	
Unpaid Drafts Outstanding	

So completely without regulation or even inspection was the so-called convertible paper money of the United States of that period, that it is scarcely possible to recover any of the facts of banking capital, circulation, deposits, or specie. Hardly a statistical fragment survives as an indication to the student of money. There is only too much reason to suppose that the officers of many banks did not themselves know the liabilities of the institutions whose affairs they were conducting.

When such a state of things as has been described could exist in regard to the Bank of the United States, an institution intended as a regulator of the general circulation, and subject to immediate supervision by the Treasury Department, it is matter of little wonder that the numerous small and scattered State banks furnish no data for the student of money.

Notes issued under such a system, or want of system, were in every economical sense inconvertible. The pretence of conversion could only be maintained under a general consent not to apply the test of redemption; a consent enforced upon recusants by a stringent public opinion and by bank retaliations, and also in border communities, there is too much reason to believe, by a sharp compulsion.

Mr. Crawford, in his report as Secretary of the Treasury in 1820, speaks of States "where the convertibility is not even ostensible."

Such a state of things almost justifies the severe language of Mr. J. R. McCulloch:

"Had a committee of clever men been selected to devise means by which the public might be tempted to engage in all manner of absurd projects, and be most easily duped and swindled, we do not know that they could have hit upon anything half so likely to effect their object as the existing American banking system. It has no redeeming quality about it, but is, from beginning to end, a compound of quackery and imposture."

The Farmers' Exchange Bank, of Gloucester, Mass., may serve as an instance in point. Its nominal capital was $1,000,000. Only $19,141.86 were ever paid in; and of this the directors subse-

quently withdrew their subscriptions, leaving $3,081.11. An enterprising operator bought out eleven of the directors for $1300 each, and then apparently moved in to take their place in the management. He borrowed of the bank $760,265. When, for some unaccountable reason, the bank failed, it had $86.46 in specie. The amount of bills outstanding was unknown. The investigating committee estimated it at $580,000.*

On the refusal of Congress in 1811 to recharter the Bank of the United States, large numbers of State banks sprang into existence, almost all of the usual American joint stock type, on the principle of limited liability. The outbreak of war with England in 1812 caused the failure of nearly all of these, except in New England where specie payments were still maintained.

The check of redemption, even to the very limited extent to which it had existed, being withdrawn by suspension, the banks continued to put out their notes, until the issues, which stood in 1811 at $28,000,000, as estimated, reached, according to Secretary Crawford, $62,000,000–$70,000,000 in 1813, and $99,000,000–$110,000,000 in 1815. The vague form of these statements is significant not only of the absence of all regulation of issues but even of public intelligence respecting the facts of issue.

In 1814, Mr. Dallas, Secretary of the Treasury, wrote:

"The multiplication of state banks in the several States has

* Sumner's Hist. Am. Curr., p. 62.

so increased the quantity of paper currency that it would be difficult to calculate its amount, and still more difficult to ascertain its value.

"There exists at this time no adequate circulating medium common to the citizens of the United States."

The depreciation of the bank paper at the close of the war, in 1815, reached in some instances fifteen, twenty, and even twenty-five per cent. Throughout 1816 the banks continued to issue their discredited notes, while floods of unchartered scrip were poured out, in bills of all denominations from six cents upward.

The war with Great Britain had given rise to the Treasury note system, which was extensively resorted to, and contributed to the excess of the circulating medium. This measure the banks, naturally enough, opposed. The Treasury notes were not of forced circulation, like the greenbacks of the war of secession; they failed to be paid at maturity, and general distrust and commercial distress ensued.

The shocking evils of the financial situation led to the establishment, in 1816, of the second Bank of the United States. It has already been said that this institution only in small part performed the work which was expected of it, that of controlling the circulation of the State banks. In what proportions the blame of this is to be divided between the original constitution of the bank, the faults of its management, the force of circumstances, and the malignant and ferocious persecution of President Jackson, need not be discussed here. Down to 1834, the bank money of the United States remained practically in-

convertible, generally in excess, though at times, as the result of panic and commercial catastrophes, reduced below the normal limit.

The panic of 1837, the second and heavier shock of 1839, and the long and dreary prostration of industry lasting until 1843, were the result of speculative overtrading and of speculative investments, especially in railways and canals, corner lots and river fronts, Western lands and Western mines, locking up in unremunerative enterprises the capital needed to conduct the trade and production of the country. Words can scarcely exaggerate the extent to which this distortion of production and misapplication of capital had been carried. Even the ordinary commercial machinery was carried away in the crash which followed. Years were required to get the customary agencies of trade, bank exchanges, commercial correspondence, business good will, and even the facilities of transportation, again in working order.

That the evils of this period were due chiefly to vices of paper money banking seems too clear to be questioned. The opening up of the Western country would inevitably have led to much wild adventure, commercially and industrially ; but it was the "elasticity" of the circulation, the facility of local issue, without the reality or scarcely the pretence of redemption, which made the banks, even the best of them, reckless as to the character of the enterprises to which they gave assistance ; while the money thus put into circulation, without "reflux," enhanced prices, and still further stimulated both

speculative investments and speculative trading. When the courage of the better class of banks gave way, hundreds of "wild cat" or "coon box" banks, so called, without capital, without a constituency, with no past and no expectation of a future, whose managers risked nothing and had nothing to risk, came forward with loans of notes to speculators who planned to build cities in the wilderness, or contractors who proposed to construct roads and bridges without materials, tools, or money to pay wages. Again, as in early New England,* a bank meant a batch of paper money.

The severe experiences of this period led in several States to legislation designed to place the issue of bank notes on a sounder basis.

New York led off with an enactment, afterwards widely imitated in other States, which secured to its paper money, though still convertible only in a limited sense, far more stability and integrity than it had before possessed.

In 1838, the free banking system of New York was established, under which the circulating notes were to be secured by a deposit of United States or New York stocks or bonds, and mortgages on improved and productive real estate. A little later, a law was passed requiring each bank to redeem its notes at an agency of the bank in New York city, Albany, or Troy. Subsequent acts of the Legislature increased the proportion of securities to notes issued, and furnished further guarantees to noteholders.

* See p. 267.

This is the scheme of secured circulation, known as the New York system, which, as stated, has been widely imitated in the legislation of other States, and on which to a considerable extent the present National Bank law was framed.

The plan of basing a circulation upon securities is not approved by the best economists. It does not give convertibility in the sense of preventing excessive issues, even in the view of the advocates of the banking principle. It does not so much as secure the perfect acceptability of the notes as a medium of exchange, since the receiver desires to be assured that the notes will at any moment be worth what he has taken them for, whereas the New York system only gives him a pledge that at a future date, when the bank shall be wound up and the securities disposed of, he shall receive that of which he may stand in instant need.

But while the New York system cannot be accepted as based on perfectly sound principles of money, or even of banking policy, it proved at the time so great a check on the reckless paper money banking that had prevailed almost universally throughout the country, and it has had so clear an effect in educating the public mind to more correct views of the banking function and the responsibilities attaching to note issues, that it deserves to be treated with consideration by the historian of American money.

The painful experiences of 1837–43, and the discussions regarding money and banking which were called out thereby; the growth of a public sentiment

to condemn excess in paper money issues, and the formulation of precepts more or less carefully observed by bank managers; the vast improvement in the commercial morality of the country, and the shortening of the term of commercial credit; together with the legislation which has been described—these causes combined to place the paper money issues on a better basis between 1844 and 1860. Yet still those issues tended to excess on the occurrence of speculative impulses in the body of trade. Excess was surely followed by deficiency, expansion by contraction, as the failure of inflated schemes aroused alarm, or the outward drain of specie made directors anxious about their grotesquely small metal reserves. If, as Wolowski says, money is, of all human agencies, that which costs least for the work it does, I cannot doubt that the United States lost heavily through the use of a medium of exchange so defective, in misdirection of effort, waste in expenditure, and impairment of industrial force.

As an incident of the civil war, and originally as a measure of resource, to secure the loan of capital to the government by the sale of bonds which should serve as the basis of issues, a system of national banks was created, and the notes of the State banks were taxed out of circulation.

The national banks came into existence when the country was in a state of suspension. Till the first of January, 1879, their bills were redeemable only in United States Treasury notes which, in turn, were inconvertible into coin. Their operations so far belong, therefore, to the history of inconvertible paper money.

Since the accomplishment of the resumption of specie payments we have scarcely accumulated experience enough to enable a judgment to be formed of the national banking system from its practical working. Viewed in the light of financial history; judged by the standards which have been approved by the best thought of England and America, we may say that the system clearly possesses great advantages over any previously in existence among us. We should not let it go without obtaining something manifestly, unmistakably better. In the fact of a uniform law for all the issuing banks of the United States is found for the first time in our history the possibility of adequately regulating the paper money circulation. To this we should cling, as to life itself. Fuller provisions are needed for cash reserves and for the central redemption of notes. It is scarcely to be expected, however, that a people so impatient of slow gains, so deeply penetrated with the belief that something can be made out of nothing, and much easily out of little, will soon bring themselves to submit to all the restraints of law and usage which in England, France, Germany, and Sweden reduce to a minimum the danger of paper issue.

We may well give two or three pages to a recapitulation of the principal results reached in the course of our inquiry.

Freely acknowledging the theoretical possibility

of a paper circulation under authority of government which should perform not unsatisfactorily the offices of a medium of exchange, value denominator, and standard of deferred payments, we have seen what appear to be sufficient reasons for holding that the best money for mankind in the present, and through any future for which the economist or the statesman feels called to provide, is a money the supply of which is determined by the cost of its production.

In the fact of its international acceptance, securing an automatic regulation of the money supply, and in its exemption from sudden arbitrary increase under political impulses or fiscal necessities, such a money has advantages which far more than compensate for the expense which it involves and for the probability that it will perform the function of a standard of deferred payments less than perfectly, it may be very badly.

If a money governed by natural conditions of supply is to be employed, the precious metals are, we have seen, better fitted for this office than any other considerable class of substances. The history of money affords no support to the opinion, sometimes lightly expressed, that mankind are becoming too highly civilized much longer to continue the use of this so-called barbarian money.

If gold and silver are to be employed as money, they will best be employed together at a conventional ratio in exchange. We have seen grounds for believing that the concurrent action of a few great States would be sufficient to establish such a conven-

tional ratio, beyond the power of any changes reasonably to be anticipated in the supply of either metal. The legal equivalency of gold and silver at the mint ratio being thus determined, the stability of the compound mass of money would become greater than that of either constituent alone; the danger of a hurtful diminution in the money supply would be reduced; and a par-of-exchange would be created between the countries using the one metal or the other exclusively, to the great advantage of international trade.

Preserving the use of gold or silver, or, better still, of gold and silver thus bound together by a fixed ratio in the coinage, as the money of general commerce, it is possible to issue, for local circulation, under sanction of law, the bills or notes of individuals or corporations, promising to pay coin on demand, which notes or bills may be issued in excess of the specie held for their redemption, with perfect safety both to the issuer and to the noteholder.

Whether there is, in such issues, a liability to excess, to the injury of the general public, is, as we have seen, a closely contested question. In a system like that of England—where the circulation is controlled by one dominant issuer; where banking traditions enforce the frequent interchange and mutual redemption of paper; where issues are restricted to notes of the higher denominations, and the circulation is thus surcharged with specie; and, lastly, where both law and public sentiment make it the unchallenged right of every holder to demand specie at his own pleasure, and the duty of every bank at all times to pay

specie, without conditions, without demur, and without retaliation—here it is admitted, by even the stoutest adherents of the currency principle, the possible evils of such a circulation sink to a minimum.

On the other hand, under a system like that of the United States in the early half of the century, where conditions prevail such as have been detailed in the present chapter, here, it is admitted even by the economists of the banking school, convertibility, in the degree which confers security against excessive issues, does not exist, and all the evils, though on a lower scale, of inconvertible paper money may be realized.

It is still disputed between these two schools whether, with the most favorable circumstances that can be afforded, and under the most stringent regulations that can be imposed, the power of issuing promissory notes, which become the ordinary money of the people, in excess of the specie held for their redemption, does not involve a tendency to excess, in a greater or less degree, and does not, therefore, cause the money of a country admitting such paper into circulation to vary somewhat otherwise than as metallic money would have varied under the same circumstances, a result which both schools would agree in pronouncing injurious to the permanent interests of trade and production.

This is the one open question in the philosophy of money. My own mind strongly inclines to the belief that such a tendency to excess under speculative impulses in the body of trade is inseparable from

such a circulation ; that the evils caused by even the slightest variation from the metallic standard far outweigh the saving in cost effected by reducing the specie basis, and that consequently such money is neither good nor cheap. But I am bound in candor to confess that the weight of economical authority is on the other side of the question.

THE END.

INDEX.